

The effect of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) on  
the experience of addiction.

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Statement:

I declare that this thesis is my own work and that, to the best of my knowledge and belief, it does not contain material from published sources without proper acknowledgement, nor does it contain material which has been accepted for the award of any other higher degree or graduate diploma in any university.

Kylie Wickham.

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## Abstract

The excessive use of alcohol and other drugs (AOD) is a significant public health problem in Australia at the current time, and the development and evaluation of effective AOD treatments is currently highly relevant. Though research investigating the implementation of mindfulness training as a treatment for AOD addiction has been scarce, results to date have supported the use of mindfulness-based interventions as a treatment for AOD addiction and have recommended that further research be conducted in this area. The current study examined the efficacy of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT), compared to Treatment as Usual (TAU), in reducing the distress and impairment associated with AOD addiction, and in increasing levels of well-being among a sample of AOD treatment-users. Thirty-four participants completed the eight-week treatment period; and completed dependent measures at baseline, post-treatment, and six-month follow-up. Participants who received MiCBT exhibited greater improvement over time, in terms of decreases in scores on the Depression scale of the DASS-21, than participants who did not receive MiCBT. Participants who received MiCBT also displayed lower levels of severity of dependence than those who did not receive MiCBT, across all time points. Differences between groups on other measures failed to reach statistical significance, however an exploration of differences between groups in effect sizes for change over time revealed that MiCBT has an *additional effect* over and above the treatment effect achieved by TAU. It was concluded that MiCBT is a viable option for inclusion in AOD treatment programs.

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The excessive use of alcohol and other drugs (AOD) is a prevalent and significant public health problem, both in Australia and worldwide (Witkiewitz, Marlatt, & Walker, 2005). According to the United Nations Office on Drugs and Crime (UNODC, 2012), problem drug users numbered approximately 27 million people globally in 2010, comprising 0.6 per cent of the world adult population. The use and abuse of illicit drugs (not including alcohol) is directly responsible for the deaths of approximately 400,000 people around the world each year, causing indirect harm to thousands of others (UNODC). In terms of health care, crime, and loss of work, worldwide drug use costs billions of dollars each year (Zgierska et al., 2009).

In Australia, the use and abuse of alcohol and other drugs is widely recognised as a major health issue, and is the cause of enormous social and economic damage (Australian Institute of Health and Welfare, AIHW, 2011; Teesson, Hall, Lynskey, & Degenhardt, 2000; Treloar, 2005). In 2010, 7.2% of a large sample of Australians (more than 26,000 respondents) reported using alcohol on a daily basis, 14.7% reported using an illicit drug in the past 12 months, and 5.3% reported using an illicit drug in the past week (AIHW). Clearly, there exists a need for effective, accessible, and evidence-based AOD treatments in Australia at this time; and the development and ongoing evaluation of such treatments is currently highly relevant and necessary (Marsden, Ogborne, Farrell, & Rush, 2000). Further, Breslin, Zack, and McMain (2002) have stated that mindfulness-based interventions as a treatment for AOD addiction warrant further investigation, as the limited amount of research undertaken in this area thus far has shown promising results. The present study represents an

attempt to carry out this mandate by offering an evaluation of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) as a treatment for AOD addiction.

### *The Experience of Addiction*

The term ‘addiction’ has traditionally been used to refer to the psychological or physiological overdependence on a mind-altering substance (Reber & Reber, 2001). AOD addiction has commonly been referred to as a ‘chronic relapsing condition’, characterised by alternating periods of remission and relapse (APA, 2000; Zgierska et al., 2009). Those who become addicted often seek treatment and/or endeavor to make changes to their patterns of behaviour (APA; Marlatt & Witkiewitz, 2005). However, in spite of their conscious intentions to maintain abstinence or moderation, many individuals experience great difficulty in refraining from AOD use after change has been achieved, and subsequently relapse to previous patterns of AOD use (APA; Bowen, Chawla, et al., 2009; Breslin et al., 2002; Ostafin & Marlatt, 2008; Witkiewitz, Marlatt, et al., 2005).

Factors within the individual that increase the likelihood of relapse include stress, anxiety, depression, emotion dysregulation, avoidance coping, and severity of dependence (Brewer, Sinha, et al., 2009; Ciraulo, Piechniczek-Buczek, & Iscan, 2003; Gossop et al., 1995; Marcus et al., 2003; Marcus & Zgierska, 2009). Also, research using the internal, powerful-others, and chance locus of control scales has found chance expectancies to be associated with drinking behaviours; while internal locus of control and perception of control by powerful others were not related to ‘alcoholism’ (Levenson, 1981). Internality, however, has been shown to negatively correlate with depression and anxiety, which are risk-factors for relapse in themselves (Levenson). Rates of relapse following treatment for AOD addiction

have been estimated at over 60%, and the prevention of relapse is the principal objective for most approaches to AOD treatment (Bowen, Chawla, et al., 2009; Marlatt & Witkiewitz, 2005).

The cognitive-behavioural model of addiction and relapse is based upon the assumption that problematic patterns of AOD use and abuse are learned behaviours, maintained by mechanisms of reinforcement (Witkiewitz, Marlatt, et al., 2005). Originally described by Marlatt and colleagues (Larimer, Palmer, & Marlatt, 1999; Marlatt & Witkiewitz, 2005), this model suggests that the immediate trigger for relapse is a 'high-risk situation' that occurs sometime after behaviour change has been achieved and significantly challenges the individual's developing sense of self-efficacy. These high-risk situations may comprise internal emotional states, external environmental cues, and interpersonal events (Marlatt & Witkiewitz). However, it is not the high-risk situations themselves that increase the likelihood of a relapse occurring, rather it is the individual's response to the situation that determines the outcome (Witkiewitz, Marlatt, et al.). Individuals who respond to the situation with an effective coping response build their self-efficacy and are less likely to relapse in future, while individuals who respond with an ineffective coping response experience decreased self-efficacy and are highly likely to use a substance at least once (Larimer et al.; Witkiewitz, Marlatt, et al.). This initial use of a substance is referred to as a 'lapse', and is not sufficient in itself to cause a relapse to occur; rather it is the individual's interpretation of the lapse as a sign of irrevocable failure on their part that further facilitates relapse (Marlatt & Witkiewitz). The cognitive-behavioural model of addiction and relapse is founded upon Beck's general cognitive-behavioural model, which proposes that a psychologically disordered person's

feelings and mood are influenced not by their external situation but by their own dysfunctional thinking and behavioural strategies (Beck, 2011).

Along with the phenomenon of relapse, another central feature of AOD addiction is the high rate of comorbidity with other psychological disorders observed among clinical populations (Evans & Sullivan, 2012; Rickwood et al., 2005). In relation to clients of AOD treatment services in Australia, ‘comorbidity’ refers to concurrent mental health and AOD problems within individuals that exist in a reciprocal potentiating relationship (Lee et al., 2007). In Australia, up to one-third of mental health clients also suffer from AOD problems, however the prevalence rate of diagnosable mental health disorders among AOD-treatment clients is around 80%, meaning that the problem of comorbidity is more widespread among AOD clients than among mental health clients (Lee et al.; Rickwood et al.). The vast majority (over 50%) of the mental health diagnoses among AOD-treatment clients fall within the categories of mood and anxiety disorders, with symptoms of depression and anxiety (which may be ‘subclinical’) being extremely common (Brewer, Bowen, Smith, Marlatt & Potenza, 2010; Lee et al.). Comorbidity is associated with poorer treatment outcomes, higher rates of relapse, and a greater risk of harm; and as such poses a ‘double treatment challenge’ for AOD treatment services (Breslin et al., 2002; Evans & Sullivan; Lee et al.). Addressing the problem of comorbidity demands that AOD treatments be tailored to manage both individuals’ AOD addiction and their comorbid psychological disorders, focusing particularly on the identification and treatment of depressive and anxiety symptomatology (Brewer, Bowen, et al.; Lee et al.).



### *Current Widely-used Methods of AOD Treatment*

On a global scale, the most commonly available treatments for AOD addiction are 12-step based support groups such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) (Bowen, Chawla, et al., 2009). Ongoing engagement in a 12-step program has been found to promote longer-term abstinence; however participation in these programs may not be appropriate for those who have difficulty conforming to the 12-step philosophy (Bowen, Chawla, et al.; Witkiewitz, Marlatt, et al., 2005). Cognitive-behavioural treatments represent a viable alternative to 12-step programs in many parts of the developed world (Bowen, Chawla, et al.); the clinical efficacy and cost effectiveness of which has been supported by numerous research investigations, as reported by Breslin et al. (2002) and Witkiewitz, Marlatt, et al. Some of the most effective CBT-based treatments for AOD addiction include cue exposure, contingency management, community reinforcement, and relapse prevention (Breslin et al.).

Relapse Prevention (RP), as described by Marlatt and colleagues (Larimer et al., 1999; Marlatt & Witkiewitz, 2005), is a CBT-based intervention that is firmly grounded in the cognitive-behavioural model of addiction and relapse. According to Marlatt and Witkiewitz, the primary objective of RP is to provide AOD treatment-users with skills and techniques for preventing and/or managing the problem of relapse. RP has become a widely disseminated and empirically supported tertiary intervention for several categories of AOD addiction (Bowen, Chawla, et al., 2009; Witkiewitz, Marlatt, et al., 2005). However, in spite of the widespread support for CBT in general and RP in particular as the preferred evidence-based treatments for AOD addiction, relapse remains a significant problem for many treatment-users, and

researchers have suggested that RP may be augmented by integrating additional efficacious treatment components (Zgierska et al., 2009).

Another established treatment for AOD addiction is the behavioural and holistic approach of Therapeutic Community (TC), wherein the primary method of behavioural change is the community itself (Liehr et al., 2010; Marcus et al., 2003). TC provides a highly structured social learning environment to facilitate positive changes in behaviour, attitudes, and self-image by developing a positive work ethic, personal accountability, community involvement, and concern for others. Progress through the TC recovery program occurs in stages, and successful treatment completion generally requires treatment-users to reside within the community for several months. Research findings have demonstrated that TC treatment-completers experience decreases in levels of substance use, criminal behaviour, unemployment, and depression. However, TC environments are restrictive, confronting, and stressful; and dropout rates are consequently high— often as high as 50%— with attrition being highest during the first 30 to 60 days after admission. (Liehr et al.; Marcus et al.) This is concerning, as TC treatment success is dependent upon long-term treatment retention; consequently the development of methods of reducing dropout out rates within TC treatment is vital (Liehr et al.). The site of the current study, a residential AOD rehabilitation centre in the north of Tasmania, functions as a TC with a CBT-based group and individual therapy program (including RP) as an adjunct to the therapeutic community.

### *Definition and Measurement of Mindfulness*

The term ‘mindfulness’, in therapeutic contexts, refers to an Eastern practice of attentiveness, formally developed through meditative techniques, that involves

“paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn, 1994, p. 4). Several authors also note that ‘mindfulness’ includes an evolving understanding of the impermanent and impersonal nature of experiences and the capacity and willingness to prevent one’s reaction to the experience, whether pleasant or unpleasant (e.g. Cayoun, 2011). There is a general consensus among authors that mindfulness comprises the following components, which will subsequently be examined in further detail: Attentiveness, purposefulness, focus on the present moment, non-judgment, non-reaction, and an understanding of impermanence (Appel & Kim-Appel, 2009; Kabat-Zinn).

Mindful *attention* involves *heightened and expanded sensory awareness*, and is a process of mere observation rather than one of evaluation. *Purposefulness* refers to the conscious, voluntary, and deliberate nature of this focused and sustained attention. *A focus on the present moment* means remaining alert to *sensory experiences in the here and now*, and ‘staying with’ these experiences from moment to moment. Mindfulness requires the exercise of a *nonjudgmental attitude* – an attitude of openness and unconditional acceptance towards immediate sensory experiences, without wishing those experiences to be gone or to be different (i.e. preventing a learned response). Thus, as awareness of present-moment experience increases, mindfulness involves a concomitant *decrease in reactivity* to that experience – regardless of the nature of the experience itself. This attitude of acceptance represents a response that is opposite to ‘experiential avoidance’, whereby individuals attempt to escape, suppress, or modify their internal experience. Finally, an *understanding of impermanence* means recognising and observing that all things change, that sensory experiences arise and pass away naturally if permitted to do so. An understanding of impermanence assists the individual to prevent

identification with their transient experience and to achieve a degree of detachment. The practice of mindfulness assists individuals to change their *relationship* to their experience rather than attempting to alter the experience itself, and thus facilitates mindful responding rather than automatic reacting. (Appel & Kim-Appel, 2009; Baer, Smith, Hopkins, Krietemeyer & Toney, 2006; Breslin et al., 2002; Cayoun, 2011; Ivanovski & Malhi, 2007; Ostafin & Marlatt, 2008.)

The assessment and empirical measurement of mindfulness have only recently begun to receive research attention. In an effort to refine the operational conceptualisation of mindfulness, Baer, Smith, Hopkins, et al. (2006) utilised five different self-report measures of mindfulness to explore the structure of the mindfulness construct. Their findings may be summarised as follows: The five mindfulness questionnaires exhibited good internal consistency and construct validity; and the results of exploratory factor analyses confirmed that mindfulness may be conceptualised as a multifaceted construct, with five distinct factors: ‘observing’, ‘describing’, ‘acting with awareness’, ‘not judging’, and ‘not reacting’. Based upon these findings, the authors developed the Five Facet Mindfulness Questionnaire (FFMQ) as a tool for measuring both the elements of mindfulness and the overarching mindfulness construct. Baer, Smith, Lykins, et al. (2008) found that higher scores on the FFMQ were related to greater meditation experience and more regular meditation practice, and also to indicators of positive psychological functioning. Overall, higher FFMQ scores were also negatively correlated with the incidence of symptoms of psychological distress and dysfunction.

*The Third Wave of Behavioural Therapies and Mindfulness-Based Interventions*

Over the past two decades, the so-called ‘third wave of behavioural therapies’ has emerged through a number of new therapeutic interventions that attempt to better address the experiential aspects of psychological impairments through the adaptation and incorporation of mindfulness meditation (Baer, Smith, Hopkins, et al., 2006; Hayes, Masuda, & De Mey, 2003; Melbourne Academic Mindfulness Interest Group, MAMIG, 2006). These mindfulness-based interventions (MBIs) include mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1990), dialectical behaviour therapy (DBT; Linehan, 1993), acceptance and commitment therapy (ACT; Hayes, Strosahl, & Wilson, 1999), mindfulness-based cognitive therapy (MBCT; Segal, Williams, & Teasdale, 2002), mindfulness-based relapse prevention (MBRP; Witkiewitz, Marlatt, et al., 2005), and mindfulness-integrated cognitive behavioural therapy (MiCBT; Cayoun, 2011). Also, variations of some of these approaches have appeared since their inception, including the mindfulness-based therapeutic community (MBTC) intervention for AOD addiction - an adaptation of MBSR (Baer, Smith, Hopkins, et al., 2006; Liehr et al., 2010). While it is recognised that the practice of mindfulness is drawn from Buddhism, these interventions themselves do not identify as part of Buddhism and may be applied outside of any spiritual/religious framework (Baer, 2003; MAMIG).

MBIs differ from traditional CBT interventions in important ways. For instance, mindfulness-based approaches do not include the need to evaluate thoughts as being rational or distorted, nor do they encourage the disputation and systematic alteration of cognitions judged to be ‘dysfunctional’ (Baer, 2003; MAMIG, 2006). Instead, clients are taught to observe their thoughts without identifying with them, to note their impermanence, and to refrain from evaluating them (Baer; Cayoun, 2011). In

short, MBIs target the *process* of thinking, not just the *content* of thoughts, by helping clients to change their relationship to the thought, rather than changing the thought itself (Cayoun, 2011; Ivanovski & Malhi, 2007). Also, effective teaching of mindfulness skills by therapists generally requires that they engage in their own regular mindfulness practice, while therapists employing more traditional cognitive-behavioural strategies are not necessarily expected to engage in regular practice of the skills they are teaching (Baer).

MBIs differ from one another in terms of their treatment target (for example: pain, stress, depression, AOD addiction), and in terms of the specific techniques employed (Baer, Smith, Hopkins, et al., 2006; Witkiewitz, Marlatt, et al., 2005). DBT and ACT utilise a number of brief exercises and metaphors as a vehicle for the attainment of mindfulness skills, and while meditation practice is encouraged within DBT and ACT, actual meditation is not a requirement of participation in these therapies. In contrast, MBSR, MBCT, MBRP, and MiCBT rely heavily on formal sitting meditation practices for the development of mindfulness, with clients being asked to meditate for up to 60 minutes each day (Baer, Smith, Hopkins, et al., 2006; Bowen, Chawla, et al., 2009; Cayoun, 2011). The meditation techniques included in these MBIs are generally derived from the Buddhist practice of Vipassana meditation (Hart, 1987). Vipassana meditation is taught worldwide via the delivery of 10-day courses by instructors trained in the tradition of the Buddhist teacher S.N. Goenka, and has been used as a stand-alone treatment of AOD with incarcerated individuals (Parks et al., 2003; Simpson et al., 2007; Witkiewitz, Marlatt, et al.).

*Rationale for the use of Mindfulness-based Interventions as a Treatment for AOD Addiction*

In their exploration of the relevance of mindfulness-based interventions as a treatment for AOD addiction, Breslin et al. (2002) presented an information-processing analysis of relapse in addictive disorders. Breslin et al. proposed that two interrelated cognitive loops – an attention/sensory loop and a memory loop – are involved in the eventual execution of AOD-use behaviours. The attention/sensory loop is responsible for the processing of external and internal stimuli that could instigate AOD use, with greater attention being given to stimuli with learned significance for the individual concerned. External (environmental) stimuli may activate ‘substance-related memory networks’ directly, or indirectly via the generation of internal stimuli such as unpleasant emotions and cravings (Breslin et al.). In individuals who have experienced repeated pairings of unpleasant emotions with AOD use – where AOD use has functioned as a means of avoiding the unpleasant emotions repeatedly in the past – the unpleasant emotions themselves may eventually assume the ability to directly activate memory in the form of conditioned associations between unpleasant emotions and AOD use (Breslin et al.). Marcus and Zgierska (2009) concur that an unwillingness to remain in contact with unpleasant thoughts and feelings – ‘experiential avoidance’ – is directly implicated in AOD use and abuse.

According to Breslin et al. (2002), activation of ‘substance-related memory networks’ leads to the automatic triggering of AOD-use ‘action plans’ that have been over-learned and are able to operate independently of the individual’s conscious awareness and cognitive effort. Activation of these action plans leads to the generation of new conscious thoughts about AOD use *and* the further activation of

AOD-related nodes in memory, causing the strengthening of existing ‘substance-related memory networks’. Therefore, any factor that increases the level of activation of these memory networks will promote further AOD use and facilitate relapse. Two such factors identified by the information-processing analysis are external and internal AOD-related stimuli, especially unpleasant emotions, and the automatic and cyclic nature of AOD-related thoughts and memories (Breslin et al.).

Considering the inevitability and pervasiveness of unpleasant emotions during life in general and AOD treatment specifically; breaking the conditioned associations between unpleasant emotions and AOD use, and therefore disrupting habits of experiential avoidance, would appear to be a necessary component of effective relapse prevention (Breslin et al., 2002; Marcus & Zgierska, 2009). Mindfulness approaches achieve this outcome by facilitating greater awareness and acceptance of unpleasant emotional experiences, and consequently reducing the need to avoid or escape these experiences via AOD use. In this way, clients are desensitised to the unpleasant internal experiences that have functioned as triggers for their automatic AOD-use ‘action plans’, and habits of experiential avoidance are extinguished as a result (Breslin et al., Ostafin & Marlatt, 2008). Mindfulness can also disrupt the automatic and cyclic process of chronic reactivation of AOD-related thoughts and memories, not by attempting to override AOD-use ‘action plans’, but by consciously observing and objectively appraising AOD-related cognitions *without reaction*, thus increasing inhibitory control (Breslin et al.; Treloar, 2005; Witkiewitz, Lustyk, & Bowen, 2012). Accordingly, Breslin et al. suggested mindfulness training as a suitable relapse-prevention treatment in conjunction with CBT, and recommended that an integration of the two treatment approaches be endeavoured.



*Previous Research Investigating the Use of Mindfulness-based Interventions as a Treatment for AOD Addiction*

In recent years there has been an upsurge in research interest in the area of MBIs targeting AOD addiction (Marcus & Zgierska, 2009). However this research has been conducted primarily in the USA, often among incarcerated populations, and has indicated the need for further research in clinical settings (Breslin et al., 2002; Brewer, Sinha, et al., 2009; Witkiewitz, Marlatt, et al., 2005; Zgierska et al., 2009). According to Zgierska and Marcus (2010, p. 78), “the time is right for rigorous assessment of mindfulness-based therapies for addictive disorders”. According to Zgierska et al.’s (2009) review of 25 studies completed between 1999 and 2009, the evidence suggests that MBIs are safe, feasible, and efficacious as treatments for AOD addiction. However, the reviewers caution that *conclusive* data in support of the use of MBIs for AOD addiction is lacking; that many of the reviewed studies suffer from serious methodological limitations; and that it remains unclear which clients might benefit most from mindfulness training, and what are the mechanisms of action inherent in mindfulness training that generate benefits.

Among the few studies which have investigated the use of mindfulness training in AOD addiction is the work of various members of the Addictive Behaviors Research Center at the University of Washington, who conducted nine Vipassana courses in a North American minimum security correctional facility with male and female inmates between 1997 and 2002 (Bowen, Witkiewitz, et al., 2006; Parks et al., 2003; Simpson et al., 2007; Witkiewitz, Marlatt, et al., 2005). This non-randomised study compared inmates who had received mindfulness training (in the Vipassana tradition, as described earlier) with those who had received ‘treatment as usual’ (TAU), on measures of postincarceration AOD use and AOD-related

psychosocial problems (Bowen, Witkiewitz, et al.; Witkiewitz, Marlatt, et al.). The results showed decreases in alcohol, marijuana, and cocaine use; fewer alcohol-related negative consequences and lower levels of drug abuse severity; lower levels of psychiatric symptoms, such as depression; decreases in the use of thought-suppression; higher levels of optimism; and an increase in (drinking related) internal locus of control (Bowen, Witkiewitz, et al.; Ivanovski & Malhi, 2007; Parks et al.; Simpson et al.; Witkiewitz, Marlatt, et al.). These results were significant in the treatment group (Vipassana meditation) but not in the control group (treatment as usual). In contrast to these findings, Alterman and colleagues compared outcomes of 'recovery house patients' who received either eight weeks of standard treatment or eight weeks of standard treatment plus 'mindfulness meditation' (randomised), and found "little indication that meditation enhanced treatment outcomes" (Alterman, Koppenhaver, Mulholland, Ladden & Baime, 2004, p. 259).

In a pilot investigation of the impact of an MBSR intervention on the stress levels of therapeutic community (TC) residents, Marcus et al. (2003) found that awakening salivary cortisol levels were significantly lower following the intervention than prior to commencing MBSR. Decreases in self-reported stress were also observed, however these did not reach statistical significance. Marcus et al. concluded that the MBSR intervention may favourably influence the physiological stress-response for individuals in a therapeutic community. Later, Liehr et al. (2010) employed linguistic analysis applied to the written 'stress stories' of therapeutic community residents in order to assess the effect of a mindfulness intervention (MBTC) on 'self-change' (measured via feeling and thinking word-use). The authors found that all participants across the two groups (MBTC group and TC control group) used fewer negative emotion words and more positive emotion words

over time, but there were no statistically significant differences between the groups over time. However, the MBTC group used fewer negative emotion words overall across all time-points compared to the TC control group (Liehr et al.). Another pilot study investigating the effects of a mindfulness intervention on stress levels, this time among AOD treatment-users in an outpatient setting, was conducted by Brewer, Sinha, et al. (2009) using an adaptation of MBRP. Brewer, Sinha, et al. found no differences between groups (MBRP-adaptation versus CBT) in alcohol and cocaine use; however differences were discovered between groups regarding response to stress provocation, with MBRP-adaptation participants displaying reduced psychological and physiological stress responses in comparison to CBT participants.

Ostafin and Marlatt (2008) found that greater mindful acceptance of individuals' current experience weakened the positive relationship between automatic alcohol-approach associations and hazardous drinking behaviours among a sample of undergraduate drinkers. Specifically, although participants with high levels of acceptance were just as likely as other participants to experience strong automatic urges to alcohol, they were less likely to act on those urges (Ostafin & Marlatt). The authors concluded that mindful acceptance may function as a 'buffer' between urges and actions; allowing the individual to 'decentre' from automatic impulses to drink, to experience a disposition to act without reacting to it (Ostafin & Marlatt).

In their evaluation of the efficacy of MBRP as an aftercare approach for AOD treatment-users, Bowen, Chawla, et al. (2009) found evidence for the feasibility of MBRP as an alternative to treatment as usual. MBRP participants demonstrated good treatment compliance, in terms of attendance and meditation practice ('homework'); and reported high levels of satisfaction with the course. Further, in comparison to TAU participants, MBRP participants demonstrated greater decreases

in AOD use and craving over time, and greater increases in acceptance and acting with awareness over time. (Bowen, Chawla, et al.) Secondary analyses of Bowen, Chawla, et al.'s data were subsequently conducted by Witkiewitz and Bowen (2010, as cited in Witkiewitz, Lustyk, et al., 2012, p. 3) and Witkiewitz, Bowen, Douglas, and Hsu (2012, as cited in Witkiewitz, Lustyk, et al., p. 4) to assess the influence of group membership (MBRP versus TAU) on the strength of the association between negative emotions and craving in the prediction of post-treatment AOD use. Results of these secondary analyses indicated that the link between depression and post-treatment AOD use was mediated by craving among TAU participants, but not among MBRP participants; and that differences in craving between the MBRP and TAU groups were significantly mediated by self-reported mindful acceptance, awareness, and nonjudgment. These results suggest that increased mindfulness among those who received MBRP (compared to TAU) contributed to the reductions in craving and enabled clients to experience unpleasant internal states such as depression without automatically reacting.

#### *Mindfulness-integrated Cognitive Behavioural Therapy (MiCBT)*

The treatment intervention to be investigated in the current study is Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT), which is being increasingly used in Australia and New Zealand for both crisis intervention and relapse prevention purposes in a wide range of conditions, including alcohol dependence (Cayoun, 2011). MiCBT is a 4-stage therapeutic approach which *integrates* mindfulness and some of the basic principles of Cognitive Behaviour Therapy (CBT) throughout all stages of the therapeutic process, rather than simply teaching mindfulness skills and then implementing CBT interventions (or vice versa). Comparable to other MBIs,

MiCBT is distinct from CBT in that, while CBT attempts to change maladaptive behaviours by modifying people's unrealistic thoughts and beliefs, MiCBT helps develop control over the processes that maintain unrealistic thoughts and beliefs (through mindfulness training). Further, MiCBT is distinct from some other MBIs in its emphasis upon the perception of internal states – in particular body sensations – as essential to the development of mindfulness. Within MiCBT, body sensations are viewed as being co-emergent with thoughts and beliefs, and as the accessible manifestation of emotional experiences. Consequently, MiCBT relies heavily upon the daily practice of formal body-scanning aspects of mindfulness (Vipassana) meditation as the medium for the development of mindfulness skills – including efficient emotional regulation skills (Cayoun, 2011).

During the first stage of MiCBT clients learn a breath concentration exercise ('mindfulness of breath' meditation), the practice of which facilitates the development of key attentional skills – focused and sustained attention, and attention-shifting. Clients become able to recognise and inhibit habitual reactions to emerging thoughts, learning instead to non-judgmentally observe thoughts as they come and go, and to reallocate attention on the breath with as short delays as possible. Mindfulness of breath fosters the understanding that thoughts are just 'thoughts', rather than 'truths' or 'facts'. In this way, mindfulness training contributes to the achievement of several CBT treatment objectives, including disengagement from 'automatic thoughts', challenging established beliefs and assumptions, and exercising 'metacognitive awareness' (Cayoun, 2011; MAMIG, 2006).

During the following stages, clients begin to include exposure tasks and learn other aspects of mindfulness meditation. They are taught 'body-scanning'

techniques, which involve systematically scanning the body in order to raise awareness of both salient and subtle body sensations. As awareness increases, clients develop the ability to feel and accept whatever sensations arise from moment to moment, while simultaneously recognising and inhibiting habitual reactions to those sensations. The concurrent development of increasing awareness and decreasing reactivity constitutes a process of systematic desensitisation to *internal* cues via prolonged exposure, which contributes to successful emotional regulation (Cayoun, 2011). As such, the practice of mindfulness meditation within MiCBT effectively targets the issues of experiential avoidance and emotional dysregulation that underpin many psychological disorders and are central to AOD addiction (Breslin et al., 2002; Brewer, Sinha et al., 2009; Marcus & Zgierska, 2009).

Central principles of the mindfulness approach included within MiCBT are ‘equanimity’ and ‘impermanence’. ‘Impermanence’ relates to the changing nature of all things, including individuals’ internal experiences (thoughts and body sensations). Understanding that internal experiences – whether pleasant or unpleasant – are impermanent by nature enables a more detached and scientific observation of these passing internal events, and removes the need to cling to or push away these experiences (Cayoun, 2011). In an AOD treatment setting, this more detached and decentred relationship to thoughts and body sensations may help to prevent the activation of memory networks and automatic thoughts leading to relapse (Bowen, Chawla et al., 2009; Breslin et al., 2002). From a learning theory perspective, Cayoun proposes that conditioning mechanisms are based upon the law of impermanence. For example, the principle of extinction represents the phenomenon that occurs when a non-reinforced learned behaviour passes away, and the principle of reinforcement represents a resistance to change in a given trajectory.

During MiCBT, one of the central skillful means developed to allow change and extinction of a conditioned response is ‘equanimity’. Equanimity is a neutral response to present-moment experiences, and a state of awareness involving neither aversion for unpleasant experiences nor craving for pleasant experiences (Hart, 1987). Equanimity may be referred to as ‘nonreactive attention’, and according to Alterman et al. (2004), it is this skill that best fits mindfulness training for work with AOD addiction. This skill transfers from meditation practice to real-life situations, where individuals are better able to resist impulses to abuse alcohol or drugs (Alterman et al.). In terms of neuroanatomy, it is proposed that equanimity relies on inhibitory networks in the temporal regions, right-prefrontal and limbic regions (inhibition of behavioural responses in emotional pathways, especially amygdala), and excitatory networks in the parietal regions (facilitation of neuroplasticity in somatosensory networks) (Cayoun, 2011). Equanimity also seems to be associated with secretion of endorphins, whereas reactivity is related to secretion of adrenaline and cortisol. (Ivanovski & Malhi, 2007) Further, Witkiewitz, Lustyk et al. (2012) report that the areas of the brain that have been associated with craving, negative affect, and relapse have also been shown to be affected by mindfulness training. Hence the development of equanimity via mindfulness meditation practice may reverse, repair, or compensate for, the neuroadaptive changes associated with AOD addiction and relapse.

#### *Rationale for use of MiCBT in the current study*

As has been set forth in an earlier section, there exists a convincing rationale for the use of MBIs, such as MiCBT, for the treatment of AOD addiction. There is also a need for further investigation into the efficacy of MBIs as a treatment for AOD

addiction in real-world settings. The present study will use MiCBT because, firstly, of its suitability for application to a broad range of psychological dysfunctions, including AOD addiction and comorbid psychological disorders (Cayoun, 2011). Utilising formal mindfulness training in the Vipassana tradition, MiCBT is able to address the fundamental problem of *reactivity* underlying AOD addiction and other psychological disorders. Accordingly, MiCBT has the potential to correct maladaptive behaviour across various diagnoses, and to effectively manage the problem of comorbidity, which is a major complication for conventional treatments. Secondly, as some of the most promising results arising from previous research into the use of MBIs with AOD addiction were obtained using Vipassana meditation (Bowen, Witkiewitz, et al., 2006; Parks et al., 2003; Simpson et al., 2007; Witkiewitz, Marlatt, et al., 2005), there is a good case for further investigating MBIs that closely integrate Vipassana meditation. MiCBT is derived from Vipassana meditation and is currently the closest available MBI model to Vipassana meditation. Finally, MiCBT, unlike MBRP, was a readily available manualised treatment intervention at the time that the current study was initiated (February 2009), and MiCBT facilitator training was also accessible to the student researcher at that time.

### *Aims and Hypotheses*

The aim of the current study is to evaluate the efficacy of MiCBT, compared to TAU, in reducing the distress and impairment associated with AOD addiction, and in increasing levels of well-being. It is hypothesised that participants' scores on the following dependent measures will decrease over time: Disordered alcohol use; problematic drug abuse; severity of dependence; depression, anxiety and stress; and chance-oriented locus of control ('measures of distress'). It is also hypothesised that



participants' scores on the following dependent measures will increase over time: Mindfulness and internal locus of control ('measures of well-being'). No specific predictions have been made regarding 'powerful others' locus of control.

It is hypothesised that scores on the 'measures of distress' will be lower for participants receiving MiCBT only and participants receiving TAU plus MiCBT than for participants receiving TAU only. It is also hypothesised that scores on the 'measures of well-being' will be higher for participants receiving MiCBT only and participants receiving TAU plus MiCBT than for participants receiving TAU only. Further, it is hypothesised that the differences between treatment groups will increase over time, in that the MiCBT only and the TAU plus MiCBT groups will show greater improvement over time than will the TAU group.

## Method

### *Design and Analysis*

This study employed a 3 (treatment condition: TAU, TAU+MiCBT, MiCBT-only) X 5 (time: baseline, mid-treatment, post-treatment, one-month follow-up, six-month follow-up) mixed-methodology design. Dependent measures were collected at each of the five points via the self-report questionnaires described below. Two-way mixed-design ANOVAs were used to test the differences between mean scores across treatment groups and time points for each dependent measure. Alpha level was set at  $p = .05$ . *Cohen's d* (Cohen, 1988) effect size statistics were also calculated as a representation of the magnitude of the change between time points for each treatment group.

### *Participants*

Participants were 57 male and 22 female ( $N = 79$ ) clients of a residential AOD rehabilitation centre in northern Tasmania, aged between 19 and 59 years ( $M = 35$ ). The ratio of males to females within this sample (2.6:1) reflects the ratio of males to females in the overall client population of the rehabilitation centre, where available beds for males outnumber available beds for females approximately 2:1. The full range of participant characteristics is presented in Table 1.

Table 1  
*Participant Characteristics (N = 79)*

| Characteristic                                | Number (percentage) of participants |
|---|-------------------------------------|
| Sex:  |                                     |
| Female  | 22 (27.8%)                          |
| Male  | 57 (72.2%)                          |
| Age:  |                                     |
| 18 – 25                                       | 10 (12.7%)                          |
| 26 – 33                                       | 27 (34.2%)                          |
| 34 – 41                                       | 25 (31.6%)                          |
| 42 – 49                                       | 12 (15.2%)                          |
| 50 +  | 5 (6.3%)                            |
| Primary Addiction:                            |                                     |
| Alcohol                                       | 41 (51.9%)                          |
| Marijuana                                     | 5 (6.3%)                            |
| Opiates                                       | 12 (15.2%)                          |
| Amphetamines                                  | 14 (17.7%)                          |
| Benzodiazepines                               | 0 (0%)                              |
| Other/Polysubstance                           | 7 (8.9%)                            |
| Level of education:                           |                                     |
| Below Year 10                                 | 16 (20.2%)                          |
| Year 10                                       | 45 (57%)                            |
| Year 12                                       | 9 (11.4%)                           |
| Certificate/Diploma                           | 5 (6.3%)                            |
| University Degree                             | 4 (5.1%)                            |
| Other psychological diagnoses:                |                                     |
| None  | 21 (26.6%)                          |
| Mood Disorder (Single Diagnosis)              | 22 (27.8%)                          |
| Anxiety Disorder (Single Diagnosis)           | 6 (7.6%)                            |
| Personality Disorder (Single Diagnosis)       | 0 (0%)                              |
| Mood & Anxiety Disorders (Multiple Diagnoses) | 15 (19%)                            |
| Other (Multiple Diagnoses)                    | 9 (11.4%)                           |
| Other (Single Diagnosis)                      | 6 (7.6%)                            |
| Previous meditation experience:               |                                     |
| Yes   | 28 (35.4%)                          |
| No  | 51 (64.6%)                          |
| Dropped out of research project:              |                                     |
| Yes   | 31 (39.2%)                          |
| No  | 48 (60.8%)                          |

As shown in Table 1, 31 of the 79 participants originally recruited did not complete the eight-week treatment period and were counted as ‘treatment dropouts’.

Characteristics of ‘treatment completers’ ( $n = 48$ ) are presented in Table 2.

Table 2

*Participant Characteristics – Treatment Completers ( $n = 48$ )*

| Characteristic                                | Number (percentage) of participants |
|---|-------------------------------------|
| Sex:  |                                     |
| Female  | 14 (29%)                            |
| Male  | 34 (71%)                            |
| Age:  |                                     |
| 18 – 25                                       | 7 (14.6%)                           |
| 26 – 33                                       | 17 (35.4%)                          |
| 34 – 41                                       | 13 (27.1%)                          |
| 42 – 49                                       | 8 (16.7%)                           |
| 50 +  | 3 (6.3%)                            |
| Primary Addiction:                            |                                     |
| Alcohol                                       | 26 (54.2%)                          |
| Marijuana                                     | 3 (6.3%)                            |
| Opiates                                       | 8 (16.7%)                           |
| Amphetamines                                  | 9 (18.8%)                           |
| Benzodiazepines                               | 0 (0%)                              |
| Other/Polysubstance                           | 2 (4.2%)                            |
| Level of education:                           |                                     |
| Below Year 10                                 | 8 (16.7%)                           |
| Year 10                                       | 28 (58.3%)                          |
| Year 12                                       | 8 (16.7%)                           |
| Certificate/Diploma                           | 1 (2.1%)                            |
| University Degree                             | 3 (6.3%)                            |
| Other psychological diagnoses:                |                                     |
| None  | 15 (31.3%)                          |
| Mood Disorder(Single Diagnosis)               | 14 (29.2%)                          |
| Anxiety Disorder(Single Diagnosis)            | 4 (8.3%)                            |
| Personality Disorder(Single Diagnosis)        | 0 (0%)                              |
| Mood & Anxiety Disorders (Multiple Diagnoses) | 8 (16.7%)                           |
| Other (Multiple Diagnoses)                    | 4 (8.3%)                            |
| Other (Single Diagnosis)                      | 3 (6.3%)                            |
| Previous meditation experience:               |                                     |
| Yes   | 19 (39.6%)                          |
| No  | 29 (60.4%)                          |

Several Chi Square analyses revealed no significant differences between treatment conditions (TAU, TAU+MiCBT, MiCBT-only) on any of the participant characteristics included in Tables 1 and 2 – neither for the total number of participants recruited ( $N = 79$ ), nor for those who completed treatment ( $n = 48$ ).

### *Materials*

Demographic information pertaining to participant characteristics (see Tables 1 and 2 above) was obtained from the rehabilitation centre's client files, with participants' consent. At baseline, post-treatment, and six-month follow-up participants completed a short questionnaire developed for this study investigating past and current meditation practice (Appendix A).

Participants completed the following self-report questionnaires at five separate points in time: The Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, et al., 2006), The Severity of Dependence Scale (SDS; Gossop et al., 1995), The Alcohol Use Disorders Identification Test (AUDIT; Babor, Saunders, Higgins-Biddle, & Monteiro, 2001), The Drug Abuse Screening Test (DAST; Skinner, 1982), The Depression, Anxiety and Stress Scales (DASS-21; Lovibond & Lovibond, 1995), and The Internal, Powerful-Others and Chance Locus of Control Scales (Levenson, 1981).

The Five Facet Mindfulness Questionnaire (Baer, Smith, Hopkins, et al., 2006) contains 39 items that measure the following five facets of the mindfulness construct, as conceptualised by Baer, Smith, Hopkins, et al.: *observing* (8 items), *describing* (8 items), *acting with awareness* (8 items), *nonjudging of inner experience* (8 items), and *nonreactivity to inner experience* (7 items). Each of the 39 items is rated on a 5-point scale ranging from 1 (*never or very rarely true*) to 5 (*very often or always true*).

For the nonreactivity facet, the total score ranges from 7 to 35; for all other facets the possible range is 8 – 40. Baer, Smith, Hopkins, et al. found the FFMQ to have good internal consistency, with alpha coefficients ranging from .72 to .92. The Five Facet Mindfulness Questionnaire is included in Appendix B.

The Severity of Dependence Scale (Gossop et al., 1995) is a measure of the degree of psychological dependence experienced by users of various substances during a particular period of time. The SDS comprises five items only. Each item is scored on a four-point scale (0 – 3), yielding a total score between 0 and 15. Higher scores indicate higher levels of dependence. Gossop et al. reported good internal consistency, and strong associations between scores on the SDS and various behavioural indicators of severity of dependence (such as dose level and frequency of use). The Severity of Dependence Scale is included in Appendix C.

The Alcohol Use Disorders Identification Test (Babor et al., 2001) was developed by the World Health Organisation and is designed to identify persons who are consuming alcohol at hazardous levels. The AUDIT (Babor et al.) consists of 10 items investigating the frequency and quantity of alcohol use during a specified period of time. Each item yields a score ranging from 0 to 4, for a total score between 0 and 40. Higher scores on the AUDIT signify higher levels of alcohol-related risk and increased likelihood of alcohol dependence. Research has shown that the AUDIT gives an accurate measure of alcohol-related risk across gender, age, and cultures – with higher scores being strongly related to other indicators of problematic drinking over time (Allen, Litten, Fertig, & Babor, 1997). Other research has found high internal consistency and test-retest reliability (Sinclair, McRee, & Babor, 1992). The Alcohol Use Disorders Identification Test is included in Appendix D.

The Drug Abuse Screening Test (Skinner, 1982) is a 28-item scale that provides a quantitative measure of various problems associated with drug abuse/dependence. Each DAST item comprises a question, to which the respondent is instructed to answer either “yes” or “no”, in reference to a specific period of time. The total DAST score may range from 0 to 28, and is obtained by adding all items endorsed in the direction of increased drug abuse problems. Higher scores on the DAST indicate more frequent use of drugs, and higher incidence of the adverse psychological and social effects of drug abuse. Skinner’s evaluation of the DAST with a clinical sample demonstrated good internal consistency (.92), and revealed via factor analysis that the DAST measures a unidimensional construct (problems related to drug abuse). The Drug Abuse Screening Test is included in Appendix E.

The Depression, Anxiety and Stress Scales (Lovibond & Lovibond, 1995) comprise a set of three scales designed to assess the severity of the three related negative emotional states of depression, anxiety and stress/tension – all of which have been associated with poorer AOD-treatment outcomes and are commonly comorbid with AOD addiction (Lee et al., 2007). The Depression scale investigates levels of dysphoria, hopelessness, devaluation of life, self-depreciation, anhedonia, and inertia. The Anxiety scale assesses autonomic arousal, physiological effects, and situational anxiety. The Stress scale examines nervous arousal, agitation, irritability, and impatience. The 42-item DASS includes 14 items for each of the three scales, and the short-form 21-item DASS includes 7 items for each scale – the present study employed the 21-item DASS (DASS-21). Each item is presented as a statement, and the respondent is instructed to indicate how much the statement applied to them during a specified period of time using a four-point scale (0 – 3). Each of the three DASS-21 scales yields a score ranging from 0 to 42 – obtained by adding together

the scores for the 7 items representing the scale, and then doubling the total. Alpha coefficients for the 7-item scales are as follows: Depression .81, Anxiety .73, and Stress .81. The DASS-21 is included in Appendix F.

The Internal, Powerful-Others and Chance Locus of Control Scales (Levenson, 1981) was designed as a reconceptualisation of Rotter's (1966) original Internal-External Locus of Control Scale, and comprises *three* subscales that measure the following three dimensions of individuals' control expectancies: Internal (I-LOC), Powerful-Others (P-LOC), and Chance (C-LOC). The Internal subscale assesses the extent to which individuals believe that they have control over their own lives. The Powerful-Others subscale investigates individuals' beliefs regarding the role of others in controlling their lives. The Chance subscale measures the degree to which individuals feel that chance or fate has control of their lives. The I, P, and C Locus of Control Scales contain 24 items (8 for each subscale) presented as statements. Respondents indicate their level of agreement with each statement using a six-point scale (-3 – 3). A total score may be obtained for each of the subscales by summing the scores for the 8 items representing that subscale, and adding a constant of 24 to eliminate negative values. For each subscale, the total score ranges from 0 to 48. Levenson reported that obtained estimates of internal consistency were moderately high (alpha coefficients ranging from .51 to .82), and that correlations with other measures provide evidence for the validity of the I, P, and C Locus of Control Scales. The Locus of Control Scale is included in Appendix G.

### *Procedure*

The current study received ethical approval from the Tasmanian Social Science Human Research Ethics Committee (HREC) on 10 October 2009. Recruitment of



participants occurred between 10 November 2009 and 23 January 2012. Data collection took place between 12 November 2009 and 31 August 2012.

After completing admission paperwork upon their arrival at the rehabilitation centre and being informed about the centre's Policies and Procedures Manual, prospective participants were invited to read the Information Sheet (see Appendix H) and enrol in the study. Those who agreed to participate subsequently signed a Consent Form (see Appendix I), completed baseline measures, and were randomly allocated in waves (groups of two to four) to one of the three treatment groups (TAU, TAU + MiCBT, and MiCBT-only). Participants were allocated to each treatment group as places became available, in this way dropouts were continuously replaced and the overall numbers of treatment completers within each group remained equal.

Dependent measures were collected (as for the baseline measures) at mid-treatment (four weeks post-enrolment) and at post-treatment (eight-weeks post-enrolment). Upon completion of the eight-week treatment period participants assigned to the MiCBT-only group either began the rehabilitation centre's therapy program (at the second stage) or exited the rehabilitation centre. Participants assigned to the TAU and TAU+MiCBT groups either continued the rehabilitation centre's therapy program or exited the rehabilitation centre at the conclusion of the eight-week treatment period. Those participants who chose to leave the rehabilitation centre – or were obliged to leave *before* completing the eight-week treatment period were counted as 'treatment dropouts'. Participants were defined as dropouts for one of the following reasons: choosing to leave the research study but remaining at the rehabilitation centre, choosing to leave the rehabilitation centre willingly for their own reasons, and being obliged to leave the rehabilitation centre

due to a breach of the centre's Policies and Procedures Manual resulting in a stand-down penalty being applied by the centre's management.

Participants who completed the eight-week treatment period were contacted 12 weeks post-enrolment (one-month follow-up) and again 32 weeks post-enrolment (six-month follow-up) to complete the dependent measures, regardless of whether they remained at the rehabilitation centre or resided in the community. Participants who failed to return six-month follow-up questionnaires were defined as 'follow-up dropouts', and their data was not included in the final analyses. The flow of participants through each time point, from recruitment through to completion of the six-month follow-up measures, is presented in Figure 1.

### *Treatment*

The MiCBT intervention was implemented by the student researcher, who had received training from the research supervisor prior to beginning to recruit participants. The TAU intervention was delivered by various staff members of the rehabilitation centre (including the student researcher), all of whom had received at least basic training in the implementation of Cognitive Behaviour Therapy (CBT) in an AOD treatment setting.

Participants assigned to the MiCBT-only group received the eight-week MiCBT intervention during their first eight weeks at the rehabilitation centre, without taking part in the centre's normal therapy program (TAU). However, these participants remained in all other aspects members of the therapeutic community and clients of the rehabilitation centre; in that they were entitled to the same rights as other residents, and were also expected to fulfill their responsibilities to the centre and to abide by the centre's Policies and Procedures Manual at all times.

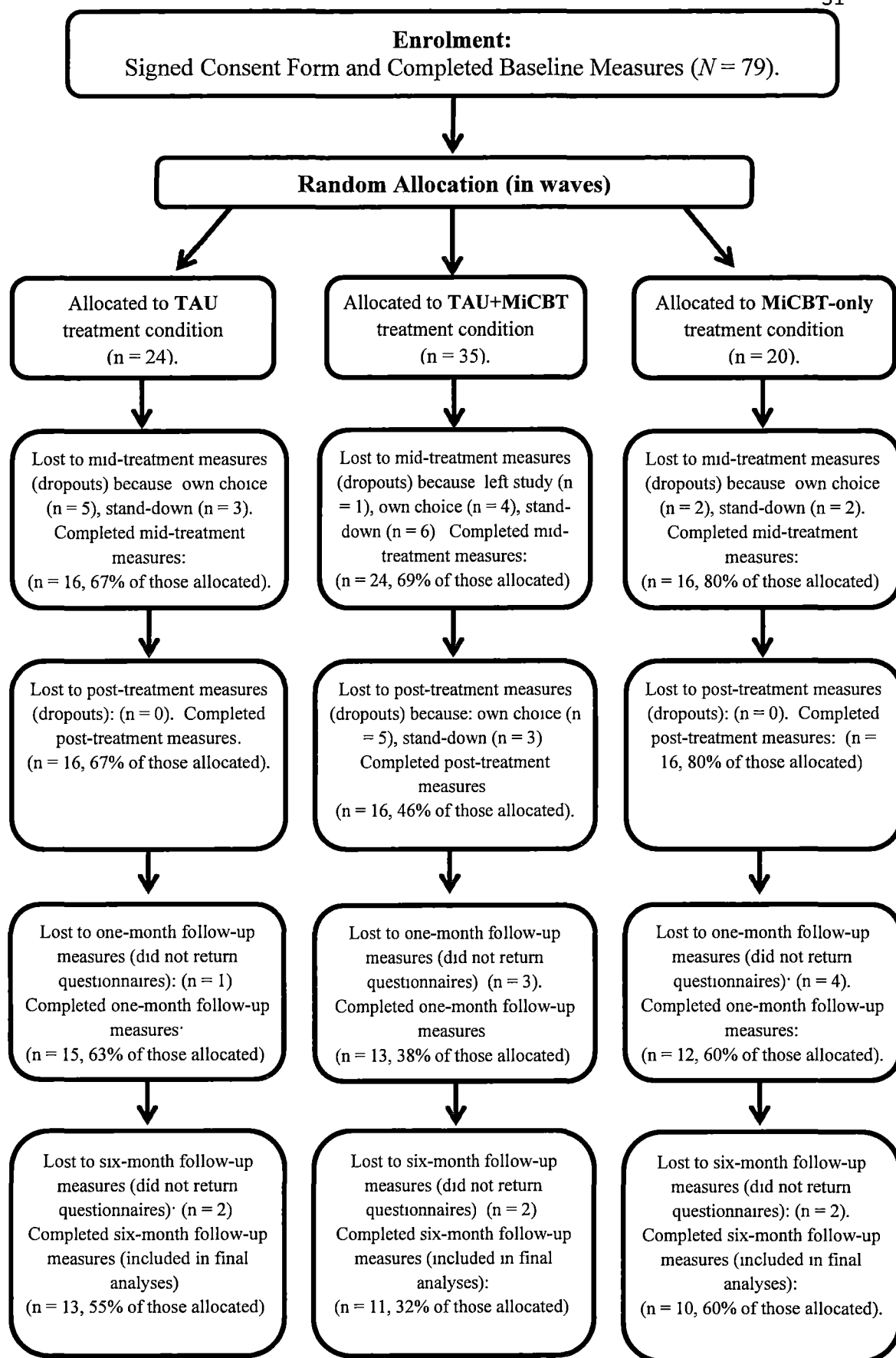


Figure 1. Flow of participants through each time point.

Participants assigned to the TAU group received the rehabilitation centre's normal therapy program during their first eight weeks at the centre, without receiving any MiCBT. Participants assigned to the TAU+MiCBT group received *both* MiCBT and TAU during their first eight weeks at the rehabilitation centre. Accordingly, TAU+MiCBT participants received four one-hour group therapy sessions per week and extra weekly 1:1 therapy sessions during their first eight weeks at the centre.

*Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT).* MiCBT is a four-stage therapeutic approach which integrates mindfulness and some of the basic principles of Cognitive Behaviour Therapy (CBT). Cayoun (2011) recommends that the MiCBT intervention be delivered in the form of one two-hour group therapy session and one half-hour 1:1 therapy session each week for a period of 8 to 10 weeks. For the purposes of the current study, it was decided that the MiCBT material and exercises would be implemented according to a schedule that corresponded to the delivery of the rehabilitation centre's therapy program (two one-hour group therapy sessions per week and one one-hour 1:1 therapy session per week), for a period of eight weeks. Each group session began with group practice of mindfulness meditation, followed by feedback – participants discussed their experiences with 'homework' (including difficulties with practice). Homework tasks centred around the twice-daily practice of mindfulness meditation. Session outlines and participant handouts for the MiCBT intervention are included in Appendix J. Participants were also provided with CDs in order to complete homework tasks (Cayoun, 2004, 2005).

*Treatment-as-Usual (TAU).* The rehabilitation centre's eight-week group therapy program is referred to as 'Foundation' and is a CBT-based intervention that covers the following areas: Education regarding the cycle of addiction and the stages

of change, and an eight-session Self-awareness module. The program is CBT-based in that participants are introduced to the basic CBT model (Thoughts → Feelings → Behaviour), and are encouraged throughout the Self-awareness module to identify and revise unhelpful thoughts and beliefs (especially in relation to the self). Upon completion of 'Foundation', residents of the rehabilitation centre may apply to enter the second stage ('Framework') of the group therapy program, or receive support to exit the centre. Handouts for the TAU group are included in Appendix K.

## Results

### *Preliminary Analyses*

*Comparison of Treatment Groups on Baseline Measures.* One-way between-groups ANOVAs were conducted in order to compare the three treatment groups on the baseline measures, both for the total number of participants recruited including eventual dropouts ( $N = 79$ ), and for the participants who completed treatment excluding dropouts ( $n = 48$ ). Results of these analyses are presented in Table 3 (including dropouts) and Table 4 (excluding dropouts).

Table 3

*Means, Standard Deviations (in parentheses), and ANOVA Results for Treatment Groups (TAU, TAU+MiCBT, MiCBT-only) on Baseline Measures for all Enrolled Participants (N = 79)*

| Baseline Measure  | TAU<br>(n = 24) | TAU+MiCBT<br>(n = 35) | MiCBT-only<br>(n = 20) | F    | p     |
|-------------------|-----------------|-----------------------|------------------------|------|-------|
| AUDIT             | 26.3(10.7)      | 24.4(11.9)            | 26(12.7)               | .218 | .805  |
| DAST              | 16.2(9.2)       | 15.2(8.7)             | 16.9(7.9)              | .252 | .778  |
| SDS               | 10.7(2.8)       | 10.5(2.7)             | 10.7(2.2)              | .057 | .945  |
| Depression (DASS) | 23.2(12.6)      | 29(8.6)               | 31.8(8.2)              | 4.53 | .014* |
| Anxiety (DASS)    | 21.8(11.7)      | 25.3(9.5)             | 27.2(9.8)              | 1.58 | .214  |
| Stress (DASS)     | 24.1(10)        | 31.9(8.3)             | 29(8.7)                | 5.43 | .006* |
| DASS total        | 69.1(30.2)      | 86.1(22.6)            | 88(24.2)               | 4.07 | .021* |
| FFMQ              | 112.7(17.2)     | 105.6(13)             | 105.8(21.2)            | 1.44 | .244  |
| I-LOC             | 30.2(7.9)       | 29.7(7.4)             | 28(7)                  | .558 | .575  |
| P-LOC             | 21(12.6)        | 20.7(10.2)            | 23.6(11.6)             | .439 | .646  |
| C-LOC             | 22.8(10.4)      | 21.3(9)               | 25.1(9.5)              | .958 | .388  |

\* Significant at the .05 level; Degrees of freedom for all analyses = 2, 76

As can be seen from Table 3, there were statistically significant differences between the treatment groups (including dropouts,  $N = 79$ ) at baseline on the DASS-21 Depression scale, the DASS-21 Stress scale, and the DASS-21 total. Post-hoc comparisons using the Tukey HSD test indicated the following: For depression, the mean score for TAU ( $M = 23.2$ ,  $SD = 12.6$ ) was significantly lower than for MiCBT-only ( $M = 31.8$ ,  $SD = 8.2$ ), while the mean score for TAU+MiCBT ( $M = 29$ ,  $SD =$

8.6) did not differ significantly from either TAU or MiCBT-only. Mean scores on the depression scale for MiCBT-only and TAU+MiCBT fell within the 'extremely severe' clinical range, while the mean score for TAU fell within the 'severe' range. For stress, the mean score for TAU ( $M = 24.1$ ,  $SD = 10$ ) was significantly lower than for TAU+MiCBT ( $M = 31.9$ ,  $SD = 8.3$ ), while MiCBT-only ( $M = 29$ ,  $SD = 8.7$ ) was not significantly different from TAU or TAU+MiCBT. Mean scores on the stress scale for MiCBT-only and TAU+MiCBT fell within the 'severe' clinical range, while the mean score for TAU fell within the 'moderate' range. For DASS-21 total, the mean score for TAU ( $M = 69.1$ ,  $SD = 30.2$ ) was significantly lower than for TAU+MiCBT ( $M = 86.1$ ,  $SD = 22.6$ ) and MiCBT-only ( $M = 88$ ,  $SD = 24.2$ ), while TAU+MiCBT and MiCBT-only did not differ significantly from each other.

Table 4

*Means, Standard Deviations (in parentheses), and ANOVA Results for Treatment Groups (TAU, TAU+MiCBT, MiCBT-only) on Baseline Measures for Participants who Completed Treatment (n = 48)*

| Baseline Measure  | TAU<br>(n = 16) | TAU+MiCBT<br>(n = 16) | MiCBT-only<br>(n = 16) | <i>F</i> | <i>p</i> |
|-------------------|-----------------|-----------------------|------------------------|----------|----------|
| AUDIT             | 24.9(10.3)      | 24.8(12.7)            | 24.6(13.4)             | .004     | .996     |
| DAST              | 15.9(8.8)       | 13(10.1)              | 15.6(8.2)              | .494     | .614     |
| SDS               | 10.4(3.1)       | 9.6(2.9)              | 10.6(2.1)              | .575     | .567     |
| Depression (DASS) | 23.1(12.8)      | 26.8(8.6)             | 31.4(8.5)              | 2.65     | .082     |
| Anxiety (DASS)    | 21.3(10.2)      | 23.8(9.6)             | 26.6(10.5)             | 1.13     | .331     |
| Stress (DASS)     | 23(9.8)         | 30.1(6.8)             | 28.8(9)                | 3.07     | .056     |
| DASS total        | 67.4(28.4)      | 80.6(19)              | 86.8(25.2)             | 2.61     | .084     |
| FFMQ              | 113(13.6)       | 103.4(10.1)           | 108.8(20.7)            | 1.54     | .225     |
| I-LOC             | 31.4(6.9)       | 28.4(7.9)             | 27.9(7.8)              | .968     | .387     |
| P-LOC             | 20.4(14.7)      | 19.3(9.1)             | 21.9(11.6)             | .192     | .826     |
| C-LOC             | 22(12)          | 20.9(8.2)             | 23.3(8.5)              | .241     | .787     |

\* Significant at the .05 level; Degrees of freedom for all analyses = 2, 45

For the participants who completed treatment (excluding dropouts,  $n = 48$ ), no significant differences were found between the treatment groups, however there was a trend toward a significant difference on the DASS-21 Stress measure, with TAU+MiCBT and MiCBT-only scoring higher than TAU (see Table 4).

*Comparison of Treatment Dropouts with Treatment Completers.* Given the high rate of dropout in the current study, a dropout analysis was undertaken. Several Chi Square analyses revealed no significant differences between treatment dropouts and



treatment completers on any of the participant characteristics included in Table 1. However, a Chi Square test comparing treatment dropouts and treatment completers according to treatment group (TAU, TAU+MiCBT, MiCBT-only) was statistically significant,  $\chi^2 (2, n = 79) = 6.78, p = .034$ , and indicated that participants allocated to the TAU+MiCBT group were more likely to drop out than those in the other two groups, and that participants allocated to the MiCBT-only group were less likely to drop out than those in the other two groups. Specifically, 19 of the 35 participants allocated to TAU+MiCBT dropped out (54.3%), 8 of the 24 participants allocated to TAU dropped out (33.3%), and only 4 of the 20 participants allocated to MiCBT-only dropped out (20%).

Independent-samples *t*-tests were conducted in order to compare treatment dropouts with treatment completers on the baseline measures; no significant differences were found. Results of these analyses are presented in Table 5.

Table 5

*Means, Standard Deviations (in parentheses), and Independent-Samples T-Test Results for Treatment Dropouts and Treatment Completers on Baseline Measures (N = 79)*

| Baseline Measure  | Dropouts<br>( <i>n</i> = 31) | Completers<br>( <i>n</i> = 48) | <i>t</i> | <i>p</i> |
|-------------------|------------------------------|--------------------------------|----------|----------|
| AUDIT             | 26.4(11.2)                   | 24.8(11.9)                     | .609     | .544     |
| DAST              | 17.7(7.8)                    | 14.8(9)                        | 1.45     | .152     |
| SDS               | 11.2(2.2)                    | 10.2(2.7)                      | 1.69     | .096     |
| Depression (DASS) | 29.2(10)                     | 27.1(10.5)                     | .901     | .370     |
| Anxiety (DASS)    | 26(10.7)                     | 23.9(10.1)                     | .889     | .377     |
| Stress (DASS)     | 31.1(9.8)                    | 27.3(9)                        | 1.77     | .080     |
| DASS total        | 86.3(27.9)                   | 78.3(25.3)                     | 1.33     | .187     |
| FFMQ              | 106.8(18.8)                  | 108.4(15.6)                    | -.396    | .694     |
| I-LOC             | 29.6(7.3)                    | 29.3(7.5)                      | .183     | .855     |
| P-LOC             | 23.1(10.2)                   | 20.5(11.8)                     | 1.01     | .317     |
| C-LOC             | 23.8(9.6)                    | 22.1(9.5)                      | .770     | .444     |

\* Significant at the .05 level

*Comparison of Follow-up Completers with Follow-up Dropouts.* Only the data collected from those participants who completed six-month follow-up measures was included in the final analyses. Of the 48 participants who completed the treatment period, 14 failed to complete six-month follow-up measures: three from TAU, five from TAU+MiCBT, and six from MiCBT-only. Several Chi Square analyses revealed no significant differences between follow-up completers (*n* = 34) and

follow-up dropouts ( $n = 14$ ) on any of the participant characteristics included in Table 1, nor according to treatment group.

To examine whether follow-up completers differed from follow-up dropouts on the dependent measures over time, 2 (follow-up completion: completers, dropouts) X 2 (time: baseline, post-treatment) mixed-design ANOVAs were conducted for each treatment group. Means and standard deviations used to calculate these ANOVAs are included in Appendix L. Main effects of time were not considered relevant to the investigation. Within the TAU group, no significant interactions or main effects of follow-up completion were found, indicating that follow-up completers did not differ significantly from dropouts on dependent measures over time. Within the TAU+MiCBT group, there were no significant interactions, however there was a significant main effect of follow-up completion for the AUDIT,  $F(1, 14) = 4.62, p = .050$ , with follow-up completers scoring higher than follow-up dropouts at both time points.

Within the MiCBT-only group, there were no significant interaction effects. However there were significant main effects of follow-up completion for the Depression scale of the DASS-21,  $F(1, 14) = 5.69, p = .032$ , the Anxiety scale of the DASS-21,  $F(1, 14) = 9.02, p = .010$ , the Stress scale of the DASS-21,  $F(1, 14) = 13.11, p = .003$ , and the DASS-21 total,  $F(1, 14) = 10.87, p = .005$ ; with follow-up dropouts scoring higher than completers at both time points on all of these measures. There was also a significant main effect of follow-up completion for I-LOC,  $F(1, 14) = 10.57, p = .006$ , with follow-up completers scoring higher than follow-up dropouts at both time points. The results of these analyses indicate that for the MiCBT-only group, follow-up dropouts exhibited higher levels of depression, anxiety, and stress; and lower levels of internal locus of control than follow-up

completers. In other words, the most distressed participants (as evinced by higher DASS-21 scores at baseline and post-treatment) within the MiCBT-only group did not complete six-month follow-up measures and therefore their data was excluded from final analyses.

To examine the possible implications of these results, one-way ANOVAs were conducted to assess for differences between treatment groups on the baseline measures for follow-up completers only. No significant differences were found. This indicates that follow-up dropouts were more distressed than follow-up completers in the MiCBT-only group. However, MiCBT follow-up completers were not significantly less distressed than follow-up completers in the other two treatment groups at the time of commencing treatment. Results of these analyses are presented in Table 6.

Table 6

*Means, Standard Deviations (in parentheses), and ANOVA Results for Treatment Groups (TAU, TAU+MiCBT, MiCBT-only) on Baseline Measures – Follow-up Completers Only (n = 34)*

| Baseline Measure  | TAU<br>(n = 13) | TAU+MiCBT<br>(n = 11) | MiCBT-only<br>(n = 10) | F    | p    |
|-------------------|-----------------|-----------------------|------------------------|------|------|
| AUDIT             | 26.6(8.9)       | 27.5(10.5)            | 24.6(13.5)             | .197 | .822 |
| DAST              | 15(9.6)         | 11.3(10.1)            | 13.5(8.7)              | .459 | .636 |
| SDS               | 10.3(3.1)       | 9.3(2.2)              | 10.6(2.5)              | .744 | .483 |
| Depression (DASS) | 24.2(11.1)      | 27.5(8.1)             | 29(7.7)                | .835 | .444 |
| Anxiety (DASS)    | 23.5(9.4)       | 22.4(10.6)            | 24(11.9)               | .068 | .934 |
| Stress (DASS)     | 24.2(9.8)       | 28.9(7.1)             | 25.2(9.3)              | .919 | .409 |
| DASS total        | 71.8(25.5)      | 78.7(21.2)            | 78.2(26.6)             | .293 | .748 |
| FFMQ              | 112.2(13.2)     | 103.9(9.8)            | 115.1(18.5)            | 1.83 | .177 |
| I-LOC             | 30.9(7.2)       | 28.9(8.5)             | 31.8(6.6)              | .417 | .663 |
| P-LOC             | 23(14.9)        | 19.9(7.9)             | 21(13.4)               | .188 | .830 |
| C-LOC             | 24.2(12.1)      | 21.8(9.2)             | 23.8(9.7)              | .170 | .844 |

\* Significant at the .05 level

#### *Comparison of Three Treatment Groups Across Three Time Points*

One participant allocated to TAU+MiCBT and two participants allocated to MiCBT-only completed six-month follow-up measures did but not complete mid-treatment measures and/or one-month follow-up measures, therefore their data would not have been included in analyses of variance comparing the three treatment groups across all five time points. In order to include the data of these three participants, and given the small sample size, final analyses compared treatment groups across

three time points only, including the data gathered from participants who had completed baseline, post-treatment, and six-month follow-up measures.

In order to assess the effect of treatment group and time on mean scores for each dependent measure, eleven 3 (treatment group: TAU, TAU+MiCBT, MiCBT-only) X 3 (time: baseline, post-treatment, six-month follow-up) mixed-design ANOVAs were conducted. Means and standard deviations for each treatment group at each time point are presented in Table 7. The results of the mixed-design ANOVAs are presented in Table 8.

There were significant main effects for time on all dependent measures except for internal locus of control (I-LOC) and powerful-others locus of control (P-LOC), with all treatment groups showing improvement from baseline to six-month follow-up. As shown in Table 7, mean scores on ‘measures of distress’ – the Alcohol Use Disorders Identification Test (AUDIT), the Drug Abuse Screening Test (DAST), the Severity of Dependence Scale (SDS), the Depression scale of the Depression, Anxiety and Stress Scales (DASS-21), the Anxiety scale of the DASS-21, the Stress scale of the DASS-21, the DASS-21 (total), and the chance-oriented locus of control scale (C-LOC) – decreased markedly from baseline to post-treatment, then remained stable or increased slightly from post-treatment to follow-up. Mean scores on the Five Facet Mindfulness Questionnaire (FFMQ) – a ‘measure of well-being’ – increased markedly from baseline to post-treatment, then increased slightly from post-treatment to follow-up.

Table 7

*Means and Standard Deviations (in parentheses) for Dependent Measures as a function of Treatment Group and Time (n = 34)*

| Dependent Measure | TAU (n = 13) |            |            | TAU+MiCBT (n = 11) |             |            | MiCBT-only (n = 10) |           |             |
|-------------------|--------------|------------|------------|--------------------|-------------|------------|---------------------|-----------|-------------|
|                   | Baseline     | Post       | Follow-up  | Baseline           | Post        | Follow-up  | Baseline            | Post      | Follow-up   |
| AUDIT             | 26.6(8.9)    | 10.8(9.2)  | 10.7(9.5)  | 27.5(10.5)         | 8.7(6.1)    | 8.6(6.6)   | 24.6(13.5)          | 6.7(5.6)  | 7.9(8.5)    |
| DAST              | 15(9.6)      | 1.5(5.5)   | 6(8.6)     | 11.3(10.1)         | 2.1(6.9)    | 2.2(4.2)   | 13.5(8.7)           | 0(0)      | 2.4(4.2)    |
| SDS               | 10.3(3.1)    | 5.5(3.9)   | 7.4(4.9)   | 9.3(2.2)           | 3.5(3.5)    | 2.5(2.6)   | 10.6(2.5)           | 5.2(4)    | 4.9(4.1)    |
| Depression (DASS) | 24.2(11.1)   | 11.7(9.2)  | 17.1(13.8) | 27.5(8.1)          | 14.4(13.4)  | 12.8(10.5) | 29(7.7)             | 11(8.7)   | 8.2(5.5)    |
| Anxiety (DASS)    | 23.5(9.4)    | 11.2(9.2)  | 14.3(10.9) | 23.4(10.6)         | 12.2(10.5)  | 11.1(8.8)  | 24(11.9)            | 8.8(8.1)  | 5.2(3.8)    |
| Stress (DASS)     | 24.2(9.8)    | 15.4(8.8)  | 16.2(12)   | 29(7.1)            | 15.3(9.9)   | 15.5(9.5)  | 25.2(9.3)           | 11.8(9)   | 10.2(6.8)   |
| DASS total        | 71.8(25.5)   | 38.3(25.9) | 47.5(34)   | 78.7(21.2)         | 41.8(31)    | 39.4(27.7) | 78.2(26.6)          | 31.6(24)  | 23.6(13.7)  |
| FFMQ              | 112.2(13.2)  | 119.9(15)  | 122.2(20)  | 103.9(9.8)         | 126.6(23.1) | 122.5(19)  | 115.1(18.5)         | 132(25)   | 134.5(19.9) |
| I-LOC             | 30.9(7.2)    | 30.2(7.6)  | 31.5(8)    | 28.9(8.5)          | 31.2(9)     | 31.1(5.6)  | 31.8(6.6)           | 32.6(7.2) | 32.8(7.3)   |
| P-LOC             | 23(14.9)     | 19.1(12.8) | 17.9(9.9)  | 19.9(7.9)          | 18.8(9)     | 16.5(7)    | 21(13.4)            | 19.5(8.8) | 16.8(11.9)  |
| C-LOC             | 24.2(21.1)   | 19.6(10.5) | 19.9(9.8)  | 21.8(9.2)          | 19.5(9)     | 21.6(7.9)  | 23.8(9.7)           | 15.3(7)   | 16.7(10.3)  |

Table 8

*Mixed-Design ANOVA Results for Dependent Measures as a function of Treatment Group and Time (n = 34)*

| Dependent Measure | Time     |          | Treatment |          | Time X Treatment |          |
|-------------------|----------|----------|-----------|----------|------------------|----------|
|                   | <i>F</i> | <i>p</i> | <i>F</i>  | <i>p</i> | <i>F</i>         | <i>p</i> |
| AUDIT             | 53.28    | <.001*   | 0.54      | .588     | 0.19             | .945     |
| DAST              | 26.49    | <.001*   | 0.83      | .447     | 0.57             | .687     |
| SDS               | 28.87    | <.001*   | 4.53      | .019*    | 0.96             | .434     |
| Depression (DASS) | 41.63    | <.001*   | 0.21      | .815     | 2.29             | .070     |
| Anxiety (DASS)    | 27.69    | <.001*   | 0.76      | .475     | 1.53             | .205     |
| Stress (DASS)     | 26.08    | <.001*   | 0.94      | .403     | 0.68             | .607     |
| DASS total        | 44.05    | <.001*   | 0.60      | .557     | 1.71             | .160     |
| FFMQ              | 18.91    | <.001*   | 1.23      | .307     | 1.24             | .302     |
| I-LOC             | 0.66     | .527     | 0.31      | .739     | 0.21             | .931     |
| P-LOC             | 2.87     | .072     | 0.08      | .924     | 0.30             | .877     |
| C-LOC             | 7.55     | .002*    | 0.32      | .726     | 1.02             | .405     |

\* Significant at the .05 level

There was also a significant main effect for treatment group on the SDS,  $F(2, 31) = 4.53$ ,  $p = .019$ . Separate one-way ANOVAs with post-hoc comparisons using the Tukey HSD test indicated that there was no significant difference between treatment groups at baseline or at post-treatment on the SDS. However, at six-month follow-up the difference was significant,  $F(2, 31) = 4.32$ ,  $p = .022$ , showing that the severity of dependence for the TAU group ( $M = 7.4$ ,  $SD = 4.9$ ) was significantly greater than that of the TAU+MiCBT group ( $M = 2.5$ ,  $SD = 2.6$ ), while the mean



score for the MiCBT-only group ( $M = 4.9$ ,  $SD = 4.1$ ) did not differ significantly from the TAU or TAU+MiCBT groups.

There were no significant group X time interactions.

### *Clinical Significance: Three Treatment Groups Across Three Time Points*

As the planned two-way mixed-design ANOVAs revealed no significant interaction effects on any of the dependent measures, post-hoc analyses to investigate differences in the way that mean scores changed over time according to treatment group were not appropriate. However, this lack of statistical significance is not surprising given the existence of insufficient statistical power due to the small sample size of the current study, and the high variability that is to be expected among participants in a real-world AOD-treatment setting. However, clinical significance is important in AOD treatment research. Since the current study is also a prospective clinical trial, further investigation of the differences in effect sizes between treatment groups in order to explore the *clinical relevance* of the results seems warranted. For this purpose, the *Cohen's d* statistic (Cohen, 1988) was chosen as a rigorous assessment of the differences between mean scores in terms of standard deviation units (Pallant, 2007). Cohen recommends the following guidelines for the interpretation of different *Cohen's d* effect size statistics:  $\geq 0.2$  represents a small effect,  $\geq 0.5$  represents a medium effect, and  $\geq 0.8$  and above represents a large effect.

For each of the 11 dependent measures, six *Cohen's d* statistics were calculated: baseline to post-treatment for each of the three treatment groups, and baseline to six-month follow-up for each of the three treatment groups. For the means and standard deviations used to compute *Cohen's d*, please refer back to Table 7. In order to compare treatment groups on the basis of the size of the effect obtained over time,

Cohen's (1988) recommendation was applied as follows: A difference between two effect sizes of 0.2 represents a small *additional* effect, a 0.5 difference represents a medium *additional* effect, and a 0.8 difference represents a large *additional* effect. Effect sizes (ESs) are presented in Figure 2 (for baseline to post-treatment changes) and Figure 3 (for baseline to follow-up changes).

*Baseline to Post-treatment ES Comparisons.* For baseline to post-treatment (see Figure 2), all effects were large, for all treatment groups, except for the FFMQ (only the TAU+MiCBT group obtained a large ES,  $d = 1.28$ ), I-LOC, P-LOC, and C-LOC (only the MiCBT-only group obtained a large ES,  $d = 1.00$ ). On the AUDIT, TAU+MiCBT obtained an effect 0.45 larger than TAU and MiCBT-only (a small additional effect). On the DAST, MiCBT-only achieved an effect 0.47 larger than TAU and TAU+MiCBT (a small additional effect). On the SDS, TAU+MiCBT obtained an effect 0.39 larger than TAU and MiCBT-only (a small additional effect). On the Depression scale of the DASS-21, MiCBT-only achieved an effect 0.96 larger than TAU and TAU+MiCBT (a large additional effect). On the Anxiety scale of the DASS-21, MiCBT-only achieved an effect 0.17 larger than TAU and TAU+MiCBT (no additional effect). On the Stress scale of the DASS-21, TAU+MiCBT achieved an effect 0.12 larger than TAU and MiCBT-only (no additional effect). On DASS total, MiCBT-only achieved an effect 0.45 larger than TAU and TAU+MiCBT (a small additional effect). On the FFMQ, TAU+MiCBT obtained an effect 0.51 larger than TAU and MiCBT-only (a medium additional effect). On I-LOC, TAU+MiCBT obtained an effect 0.14 larger than TAU and MiCBT-only (no additional effect). On P-LOC, TAU obtained an effect 0.14 larger than TAU+MiCBT and MiCBT-only (no additional effect). On C-LOC, MiCBT-only obtained an effect 0.59 larger than TAU and TAU+MiCBT (a medium additional effect).

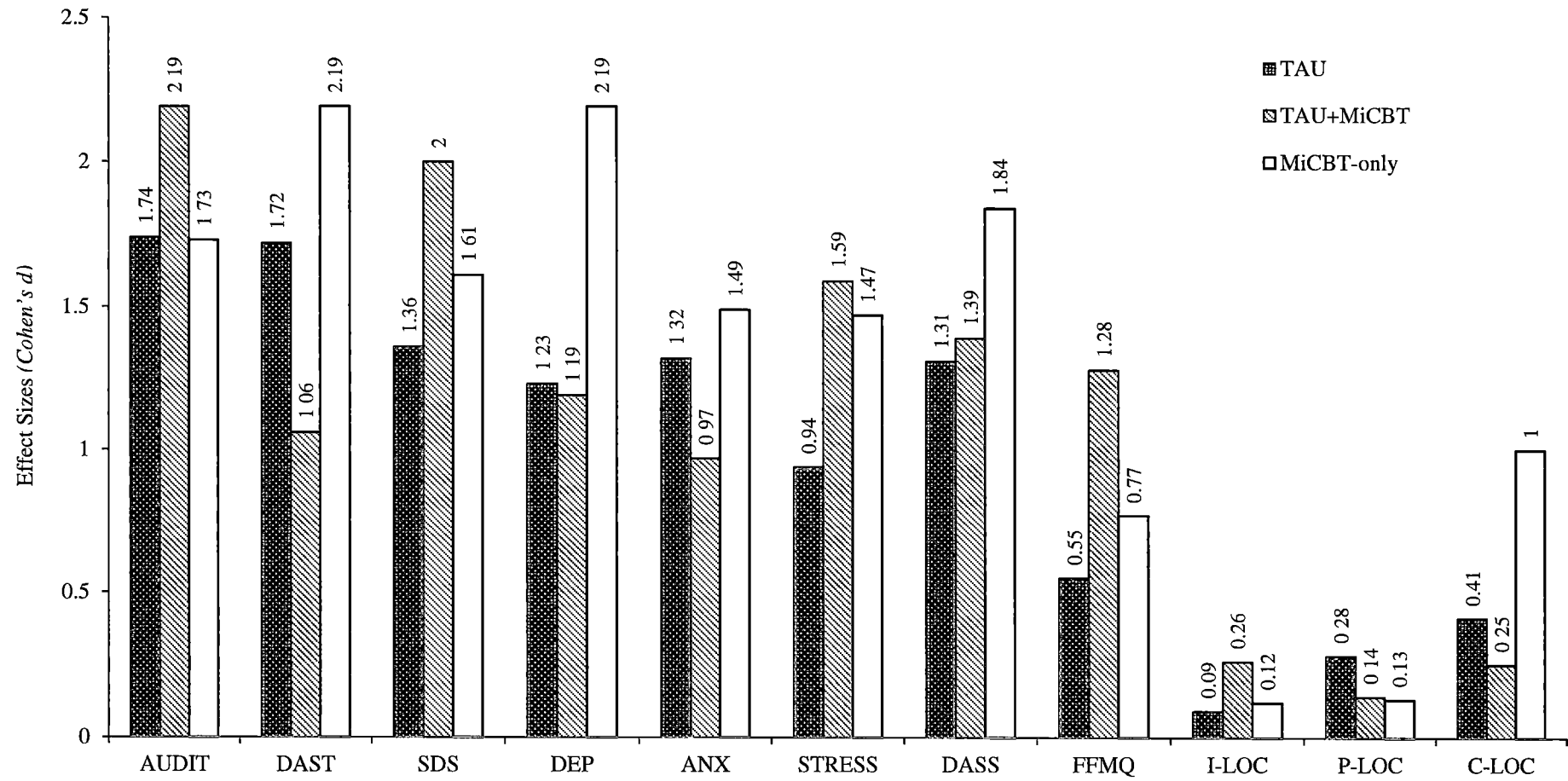


Figure 2. Cohen's *d* effect sizes for baseline to post-treatment changes on dependent measures for each treatment group.

*Baseline to Follow-up ES Comparisons.* For baseline to follow-up (see Figure 3), all ESs were large, except for the TAU group on the SDS, all DASS scales, and FFMQ. Moreover, none of the three groups produced a large effect on any of the Locus of Control subscales (I-LOC, P-LOC, and C-LOC). On the AUDIT, TAU+MiCBT obtained an effect 0.43 larger than TAU and MiCBT-only (a small additional effect). On the DAST, MiCBT-only obtained an effect 0.44 larger than TAU and MiCBT-only (a small additional effect). On the SDS, TAU+MiCBT achieved an effect 1.15 larger than TAU and MiCBT-only (a large additional effect). On the Depression scale of the DASS-21, MiCBT-only achieved an effect 1.53 larger than TAU and TAU+MiCBT (a large additional effect). On the Anxiety scale of the DASS-21, MiCBT-only achieved an effect 0.96 larger than TAU and TAU+MiCBT (a large additional effect). On the Stress scale of the DASS-21, MiCBT-only achieved an effect 0.24 larger than TAU and TAU+MiCBT (a small additional effect). On DASS total, MiCBT-only achieved an effect 0.98 larger than TAU and TAU+MiCBT (a large additional effect). On the FFMQ, TAU+MiCBT obtained an effect 0.22 larger than TAU and MiCBT-only (a small additional effect). On I-LOC, TAU+MiCBT obtained an effect 0.16 larger than TAU and MiCBT-only (no additional effect). On P-LOC, TAU+MiCBT obtained an effect 0.05 larger than TAU and MiCBT-only (no additional effect). On C-LOC, MiCBT-only obtained an effect 0.32 larger than TAU and TAU+MiCBT (a small additional effect).

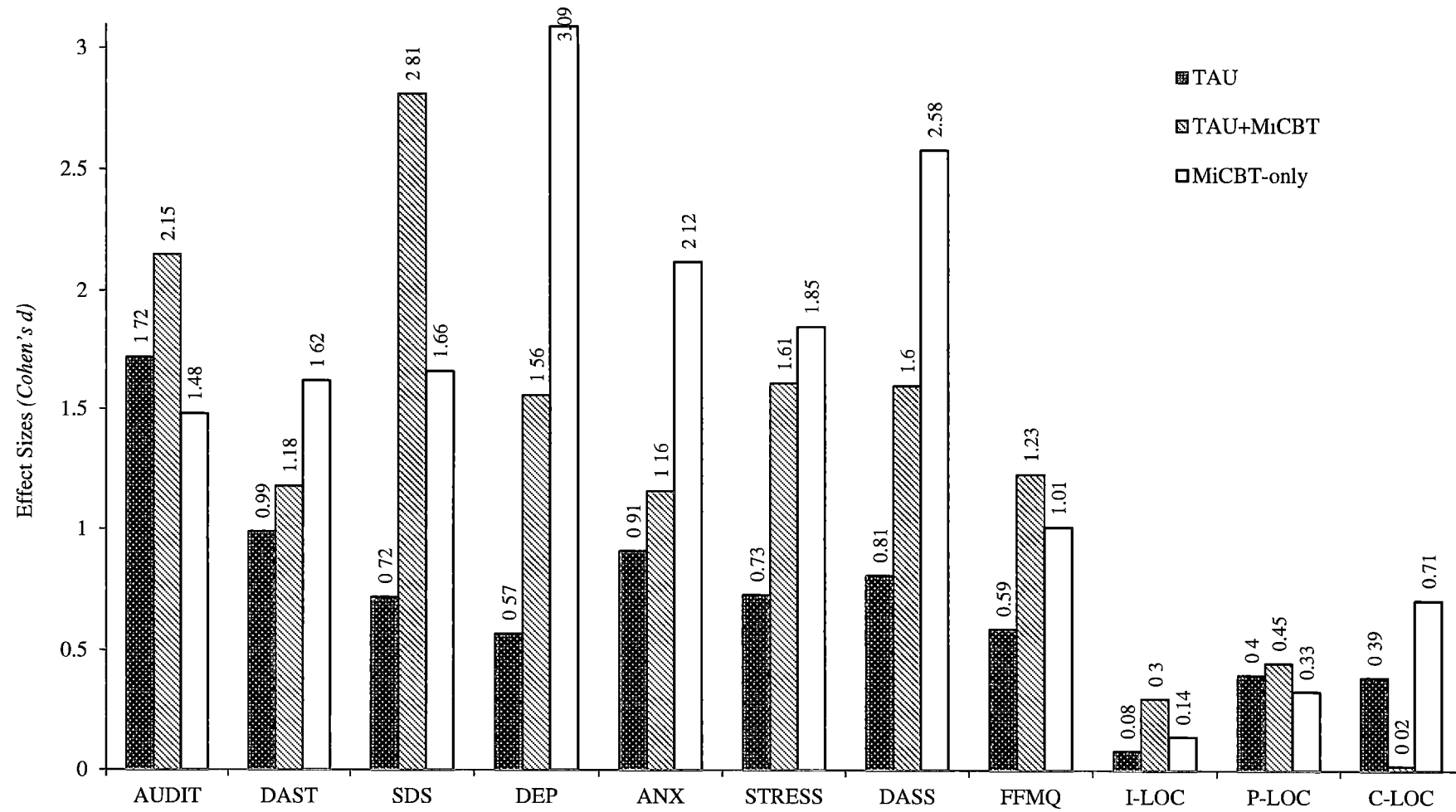


Figure 3. Cohen's *d* effect sizes for baseline to follow-up changes on dependent measures for each treatment group.

### *Comparison of Two Treatment Groups Across Three Time Points*

To further investigate the effects of receiving the MiCBT intervention on mean dependent measure scores over time, the TAU+MiCBT and the MiCBT-only treatment groups were collapsed to form one group ( $n = 21$ ) representing those participants who received MiCBT. The TAU group size remained unchanged ( $n = 13$ ), representing those participants who received no MiCBT.

In order to assess the effect of group and time on mean scores for each dependent measure, 2 (treatment group: TAU, MiCBT) X 3 (time: baseline, post-treatment, six-month follow-up) mixed-design ANOVAs were conducted. Means and standard deviations for each group at each time point are presented in Table 9. The results of the mixed-design ANOVAs are presented in Table 10.

There were significant main effects for time on all dependent measures with the exception of I-LOC, with both treatment groups showing improvement from baseline to six-month follow-up. As shown in Table 9, mean scores on all ‘measures of distress’ – the AUDIT, the DAST, the SDS, the Depression scale of the DASS-21, the Anxiety scale of the DASS-21, the Stress scale of the DASS-21, the DASS-21 (total), and C-LOC – decreased markedly from baseline to post-treatment, then remained stable or increased slightly from post-treatment to follow-up. Mean scores on P-LOC – another ‘measure of distress’ – decreased from baseline to post-treatment, then decreased further from post-treatment to follow-up. Mean scores on the FFMQ – a ‘measure of well-being’ – increased markedly from baseline to post-treatment, then increased slightly from post-treatment to follow-up.

Table 9

*Means and Standard Deviations (in parentheses) for Dependent Measures as a function of Treatment Group (with TAU+MiCBT and MiCBT-only combined) and Time (n = 34)*

| Dependent Measure | TAU (n = 13) |            |            | MiCBT (n = 21) |             |             |
|-------------------|--------------|------------|------------|----------------|-------------|-------------|
|                   | Baseline     | Post       | Follow-up  | Baseline       | Post        | Follow-up   |
| AUDIT             | 26.6(8.9)    | 10.8(9.2)  | 10.7(9.5)  | 26.1(11.8)     | 7.8(5.8)    | 8.3(7.4)    |
| DAST              | 15(9.6)      | 1.5(5.5)   | 6(8.6)     | 12.3(9.3)      | 1.1(5)      | 2.3(4.1)    |
| SDS               | 10.3(3.1)    | 5.5(3.9)   | 7.4(4.9)   | 9.9(2.4)       | 4.3(3.7)    | 3.7(3.5)    |
| Depression (DASS) | 24.2(11.1)   | 11.7(9.2)  | 17.1(13.8) | 28.2(7.8)      | 12.8(11.2)  | 10.6(8.7)   |
| Anxiety (DASS)    | 23.5(9.4)    | 11.2(9.2)  | 14.3(10.9) | 23.1(11)       | 10.6(9.4)   | 8.3(7.4)    |
| Stress (DASS)     | 24.2(9.8)    | 15.4(8.8)  | 16.2(12)   | 27.1(8.2)      | 13.6(9.4)   | 13(8.5)     |
| DASS total        | 71.8(25.5)   | 38.3(25.9) | 47.5(34)   | 78.5(23.3)     | 37(27.7)    | 31.9(23.1)  |
| FFMQ              | 112.2(13.2)  | 119.9(15)  | 122.2(20)  | 109.2(15.3)    | 129.2(23.6) | 128.2(19.9) |
| I-LOC             | 30.9(7.2)    | 30.2(7.6)  | 31.5(8)    | 30.3(7.6)      | 31.9(8.1)   | 31.9(6.4)   |
| P-LOC             | 23(14.9)     | 19.1(12.8) | 17.9(9.9)  | 20.4(10.6)     | 19.1(8.7)   | 16.7(9.4)   |
| C-LOC             | 24.2(12.1)   | 19.6(10.5) | 19.9(9.8)  | 22.8(9.2)      | 17.5(8.2)   | 19.3(9.2)   |

Table 10

*Mixed-Design ANOVA Results for Dependent Measures as a function of Treatment Group (with TAU+MiCBT and MiCBT-only combined) and Time (n = 34)*

| Dependent Measure | Time     |          | Treatment |          | Time X Treatment |          |
|-------------------|----------|----------|-----------|----------|------------------|----------|
|                   | <i>F</i> | <i>p</i> | <i>F</i>  | <i>p</i> | <i>F</i>         | <i>p</i> |
| AUDIT             | 50.16    | <.001*   | 0.69      | .413     | 0.28             | .756     |
| DAST              | 26.1     | <.001*   | 1.71      | .201     | 0.65             | .527     |
| SDS               | 25.2     | <.001*   | 5.03      | .032*    | 1.92             | .163     |
| Depression (DASS) | 32.42    | <.001*   | 0.03      | .871     | 3.79             | .034*    |
| Anxiety (DASS)    | 22.28    | <.001*   | 0.88      | .356     | 1.75             | .190     |
| Stress (DASS)     | 22.04    | <.001*   | 0.07      | .796     | 1.35             | .275     |
| DASS total        | 35.60    | <.001*   | 0.23      | .636     | 2.71             | .082     |
| FFMQ              | 14.89    | <.001*   | 0.53      | .470     | 2.13             | .136     |
| I-LOC             | 0.50     | .031     | 0.05      | .834     | 0.31             | .734     |
| P-LOC             | 3.24     | .053*    | 0.14      | .715     | 0.61             | .552     |
| C-LOC             | 6.17     | .006*    | 0.23      | .638     | 0.15             | .865     |

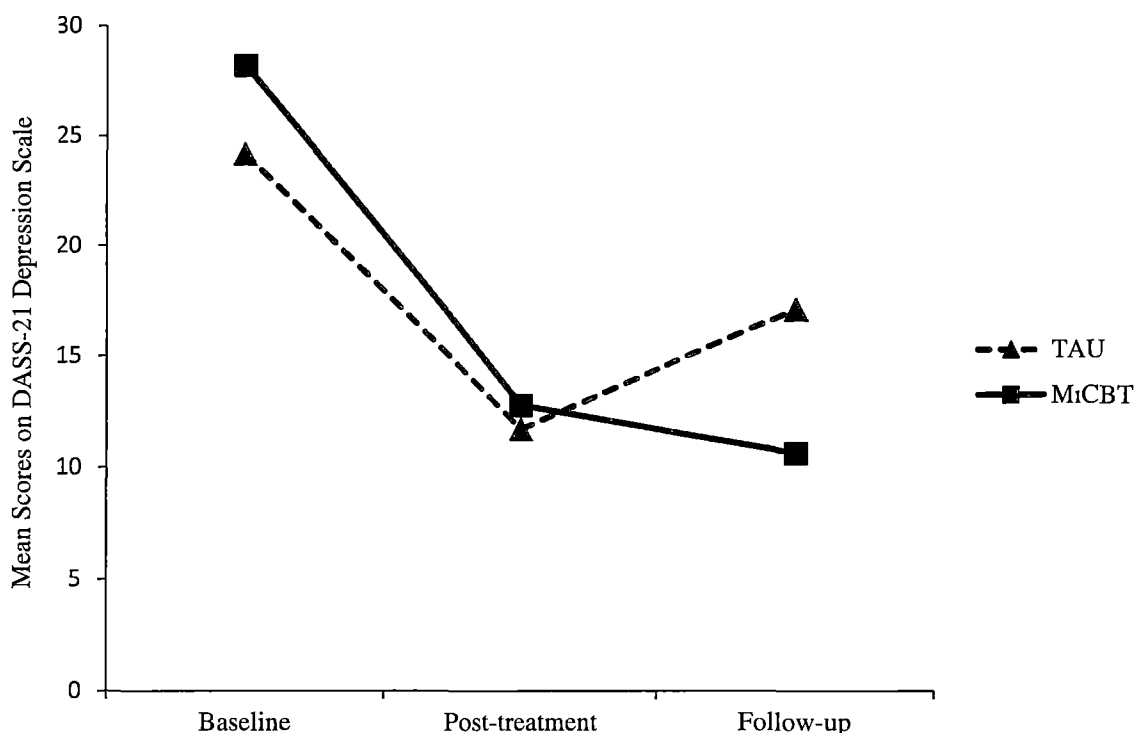
\* Significant at the .05 level

There was also a significant main effect of group on the SDS,  $F(1, 32) = 5.031$ ,  $p = .032$ . Independent-samples  $t$ -tests revealed no significant differences between TAU and MiCBT at baseline or at post-treatment. However, at follow-up, the groups differed significantly,  $t(32) = 2.58$ ,  $p = .015$  (two-tailed), with the TAU group reporting higher levels of dependence severity ( $M = 7.38$ ,  $SD = 4.86$ ) than the MiCBT group ( $M = 3.67$ ,  $SD = 3.53$ ).

There was a significant interaction on the Depression scale of the DASS-21,  $F(2, 31) = 3.79$ ,  $p = .034$ . Separate independent-samples  $t$ -tests were conducted to



investigate the magnitude of the differences between TAU and MiCBT at each time point, and separate paired-samples *t*-tests were conducted to assess differences between time points for each group. The independent-samples *t*-tests revealed no significant differences between the TAU and MiCBT groups across time points, however there was a trend toward a significant difference at follow-up,  $t(32) = 1.68$ ,  $p = .102$  (two-tailed), with TAU ( $M = 17.1$ ,  $SD = 13.8$ ) scoring higher than MiCBT ( $M = 10.6$ ,  $SD = 8.7$ ). Within the TAU group, paired-samples *t*-tests revealed a significant difference,  $t(12) = 6.35$ ,  $p < .001$  (two-tailed), between baseline ( $M = 24.2$ ,  $SD = 11.1$ ) and post-treatment ( $M = 11.7$ ,  $SD = 9.2$ ). There was a trend toward a significant difference between post-treatment and follow-up,  $t(12) = -1.54$ ,  $p = .149$  (two-tailed), for the TAU group, with scores at follow-up ( $M = 17.1$ ,  $SD = 13.8$ ) being higher than at post-treatment. Within the MiCBT group, paired-samples *t*-tests revealed a significant difference,  $t(20) = 5.44$ ,  $p < .001$  (two-tailed), between baseline ( $M = 28.2$ ,  $SD = 7.8$ ) and post-treatment ( $M = 12.8$ ,  $SD = 11.2$ ), however there was no significant difference between post-treatment and follow-up ( $M = 10.6$ ,  $SD = 8.7$ ). The interaction between time and treatment group on the Depression scale of the DASS-21 is represented in Figure 4. Figure 4 illustrates that mean scores for both TAU and MiCBT decreased in parallel from baseline to post-treatment, however from post-treatment to follow-up mean scores for MiCBT continued to decrease while mean scores for TAU increased.



*Figure 4.* Mean scores on DASS-21 Depression scale by treatment group over three time points.

#### *Clinical Significance: Two Treatment Groups Across Three Time Points*

For each of the 11 dependent measures, four *Cohen's d* statistics were calculated for both treatment groups: effects from baseline to post-treatment, and baseline to six-month follow-up. For the means and standard deviations used to compute *Cohen's d*, refer back to Table 9. ESs for baseline to post-treatment changes are presented in Figure 4 and ESs for baseline to follow-up changes in Figure 5.

*Baseline to Post-treatment ES Comparisons.* For baseline to post-treatment (see Figure 4), all effects were large, in both treatment groups, except for FFMQ (only MiCBT obtained a large effect size,  $d = 1.00$ ), I-LOC, P-LOC, and C-LOC. On the AUDIT, the MiCBT group obtained an effect 0.23 larger than TAU (a small additional effect). On the DAST, the TAU group achieved an effect 0.21 larger than MiCBT (a small additional effect). On the SDS, the MiCBT group obtained an

effect 0.43 larger than TAU (a small additional effect). On the Depression scale of the DASS-21, the MiCBT group achieved an effect 0.37 larger than TAU (a small additional effect). On the Anxiety scale of the DASS-21, the TAU group achieved an effect 0.09 larger than MiCBT (no additional effect). On the Stress scale of the DASS-21, the MiCBT group achieved an effect 0.59 larger than TAU (a medium additional effect). On DASS total, the MiCBT group achieved an effect 0.31 larger than TAU (a small additional effect). On the FFMQ, the MiCBT group obtained an effect 0.45 larger than TAU (a small additional effect). On I-LOC, the MiCBT group obtained an effect 0.11 larger than TAU (no additional effect). On P-LOC, the TAU group obtained an effect 0.14 larger than MiCBT (no additional effect). On C-LOC, the MiCBT group obtained an effect 0.19 larger than TAU (no additional effect).

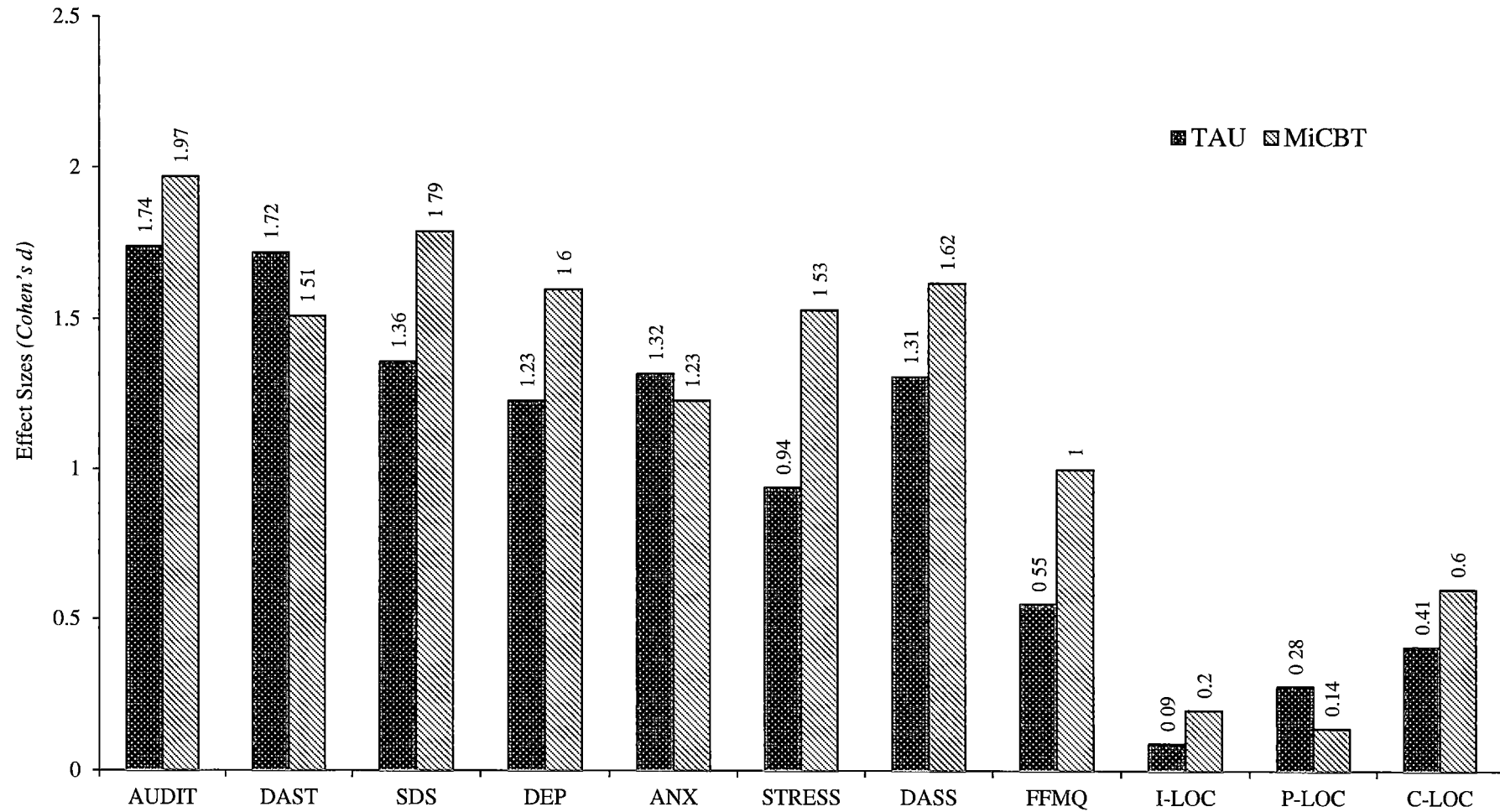


Figure 4. Cohen's d effect sizes for baseline to post-treatment changes on dependent measures for two treatment groups.

*Baseline to Follow-up ES Comparisons.* For baseline to follow-up (see Figure 5), most effects were large, except for I-LOC, P-LOC, and C-LOC. On the AUDIT, the MiCBT group obtained an effect 0.09 larger than TAU (no additional effect). On the DAST, the MiCBT group obtained an effect 0.41 larger than TAU (a small additional effect). On the SDS, the MiCBT group achieved an effect 1.35 larger than TAU (a large additional effect). On the Depression scale of the DASS-21, the MiCBT group achieved an effect 1.57 larger than TAU (a large additional effect). On the Anxiety scale of the DASS-21, the MiCBT group achieved an effect 0.68 larger than TAU (a medium additional effect). On the Stress scale of the DASS-21, the MiCBT group achieved an effect 0.96 larger than TAU (a large additional effect). On DASS total, the MiCBT group achieved an effect 1.20 larger than TAU (a large additional effect). On the FFMQ, the MiCBT group obtained an effect 0.48 larger than TAU (a small additional effect). On I-LOC, the MiCBT group obtained an effect 0.15 larger than TAU (no additional effect). On P-LOC, the TAU group obtained an effect 0.02 larger than MiCBT (no additional effect). On C-LOC, the TAU group obtained an effect 0.01 larger than MiCBT (no additional effect).

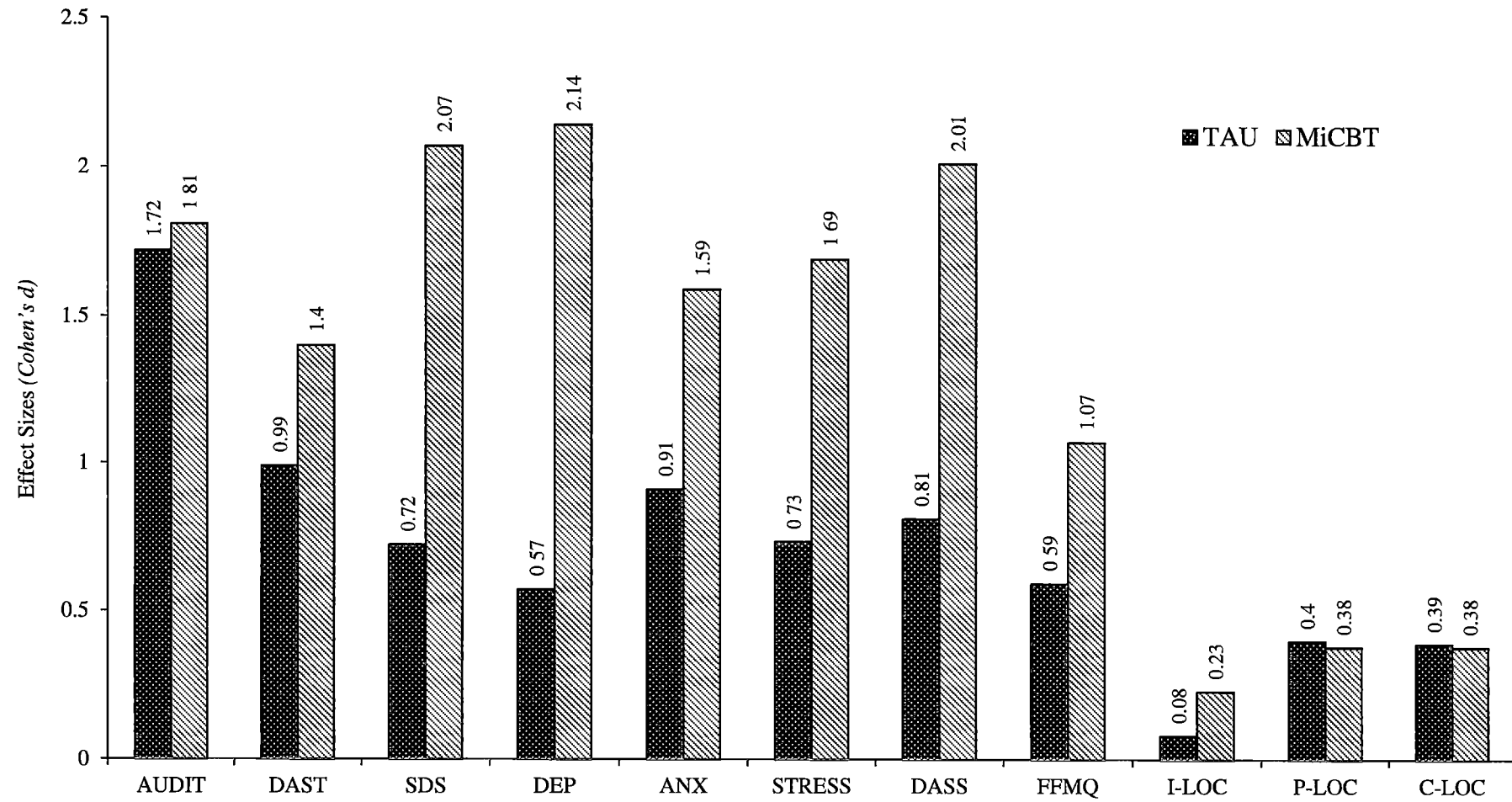


Figure 5. Cohen's *d* effect sizes for baseline to follow-up changes on dependent measures for two treatment groups.

### *Additional Analyses: Commitment to meditation practice*

Descriptive statistics generated to explore the number and percentage of participants who were practicing meditation (not-at-all, less-than-daily, daily-plus) at post-treatment revealed the following: 87.5% of participants in the TAU+MiCBT group were still meditating (43.8% were meditating daily or more often), and 87.5% of participants in the MiCBT-only group were still meditating (31.2% were meditating daily or more often). At six-month follow-up, 63.6% of participants in the TAU+MiCBT group were still meditating (9% were meditating daily or more often), and 50% of participants in the MiCBT-only group were still meditating (20% were meditating daily or more often).

To investigate the relationship between frequency of meditation and FFMQ scores, a one-way between-groups ANOVA was conducted in order to compare the three meditation-frequency groups (not-at-all, less-than-daily, daily-plus) on post-treatment FFMQ scores. There was a significant difference,  $F(2, 45) = 6.46, p = .003$ . Post-hoc comparisons using the Tukey HSD test indicated that the mean score for the daily-plus meditation group ( $M = 141, SD = 20.6$ ) was significantly higher than for the not-at-all meditation group ( $M = 118.6, SD = 13.4$ ) and the less-than-daily meditation group ( $M = 119.2, SD = 21.4$ ), however the not-at-all and the less-than-daily groups did not differ significantly from each other.

## Discussion

The aim of the current study was to evaluate the differential efficacy of MiCBT, and TAU in reducing the distress and impairment associated with AOD addiction and increasing levels of well-being. Distress and well-being were assessed using the

Alcohol Use Disorders Identification Test (AUDIT), the Drug Abuse Screening Test (DAST), the Severity of Dependence Scale (SDS), the Depression, Anxiety and Stress Scales (DASS-21), the Five Facet Mindfulness Questionnaire (FFMQ), and the Internal, Powerful-others, and Chance Locus of Control Scales (I, P, and C LOC).

The hypothesis that scores on ‘measures of distress’ (AUDIT, DAST, SDS, DASS-21, C-LOC) would decrease over time, and that scores on measures of well-being (FFMQ, I-LOC) would increase over time, for all treatment groups, was supported on all dependent measures with the exception of I-LOC. Across all groups, internal locus of control was not significantly improved over time, meaning that participants’ belief that they have control over their own lives was not increased. However, this finding is not discrepant with earlier research into the relationships between locus of control and ‘alcoholism’, which found that levels of internal locus of control were not significantly related to levels of drinking behaviours (Levenson, 1981). These earlier findings, together with the results of the current study, suggest that the experience of addiction may not be characterised so much by deficiencies in internal locus of control, as by elevated levels of chance locus of control.

There were significant main effects for time on the AUDIT, the DAST, the SDS, the Depression, Anxiety, and Stress scales of the DASS-21, the FFMQ, and the C-LOC. For the measures of distress, mean scores across all groups generally decreased significantly from baseline to post-treatment and then increased slightly from post-treatment to follow-up. These changes indicate that all participants reduced levels of hazardous alcohol use and problematic drug use, experienced decreases in levels of AOD dependence, and reported fewer symptoms of depression, anxiety, and stress. On the FFMQ, mean scores increased markedly from baseline to



post-treatment and then increased slightly from post-treatment to follow-up; showing that participants in all treatment groups improved on the ability to be aware of and observe stimuli, describe experiences less judgementally, and not be as reactive to stimuli. These findings demonstrate that *all* participants in the current study, regardless of treatment group allocation, experienced marked improvement over time, although there was a tendency towards partial ‘relapse’ after the collection of post-treatment measures when group membership was not taken into account.

The hypothesis that levels of distress would be lower, and levels of well-being would be higher, for participants receiving MiCBT-only and participants receiving TAU+MiCBT than for participants receiving TAU only, was supported only for the SDS, which is a measure of the degree of psychological dependence experienced by AOD users (Gossop et al., 1995). There was a main effect of treatment group on the SDS, with the TAU+MiCBT group scoring significantly lower than the TAU group at six-month follow-up (but not at the other two time points). The MiCBT-only group also scored lower than TAU, but this difference did not reach statistical significance. After collapsing TAU+MiCBT and MiCBT-only to form one MiCBT treatment group and increase statistical power, a main effect of treatment group was again found on the SDS, with the MiCBT group scoring significantly lower than TAU at six-month follow-up. This effect indicates that the MiCBT intervention was more effective than TAU alone for lowering levels of psychological dependence, craving, and compulsivity associated with AOD addiction. The observed reduction in severity of dependence among MiCBT participants provides further evidence for the role of mindfulness training in addressing the compulsive need to avoid unpleasant internal experiences, and in increasing the individual’s sense of control

over their internal responses (Breslin et al., 2002; Cayoun, 2011). There were no other significant main effects of treatment group.

The hypothesis that the differences between treatment groups would increase over time, in that the MiCBT-only and the TAU+MiCBT groups would show greater improvement over time than would the TAU group, was not supported by the occurrence of statistically significant interactions on any of the dependent measures when analysed across three treatment groups (TAU, TAU+MiCBT, MiCBT-only). However, this hypothesis did receive support, for the DASS-21 depression scale, as shown by a significant interaction after combining the TAU+MiCBT and MiCBT-only groups to form one MiCBT treatment group. This effect revealed that, while mean scores for both treatment groups decreased markedly from baseline to post-treatment, from post-treatment to follow-up MiCBT mean scores further decreased while TAU mean scores increased. Participants who received the MiCBT intervention displayed reduced levels of depression during treatment, and continued to accrue these benefits in the six months following treatment; while those who did not receive the MiCBT intervention experienced an increase in depression levels during the six months following the treatment period. Past research has demonstrated that depression is a risk factor for AOD addiction and relapse (Ciraulo et al., 2003; Zgierska et al., 2009). The current results regarding the effect of MiCBT on depression levels over time suggest that including MiCBT in standard AOD treatment protocols is likely to reduce depression and contribute to relapse prevention. Further, as symptoms of depression are commonly comorbid with AOD addiction (Lee et al., 2007), reflected in the fact that 29.2% of participants who completed the treatment period in the current study had been previously diagnosed with a mood disorder (see Table 2), MiCBT has demonstrated utility in addressing

the problem of comorbidity inherent to AOD treatment settings in Australia (Lee et al.).

An exploration of the differences in effect sizes (*Cohen's d*) between treatment groups provided further support for the hypothesis that the MiCBT-only and TAU+MiCBT groups would show greater improvement over time than the TAU group. As can be observed from Figure 5, which compares the MiCBT group (TAU+MiCBT and MiCBT-only combined) with the TAU group in terms of the size of the treatment effect obtained over time on each of the dependent measures, participants who received MiCBT showed greater improvements than those who did not, on all measures excepting P-LOC and C-LOC. Although these effects did not reach statistical significance due to a low level of statistical power in the current study, differences in effect sizes between treatment groups ranging from 0.2 to 1.57 are clinically significant; and demonstrate that, while TAU is effective, MiCBT achieves additional effects over and above TAU. In summary, the examination of effect sizes confirmed that MiCBT was as effective as TAU – or *more effective* than TAU – in reducing disordered alcohol use (AUDIT), problematic drug abuse (DAST), severity of dependence (SDS), depression, anxiety and stress (DASS-21), and chance-oriented locus of control (C-LOC); and in increasing levels of mindfulness (FFMQ) and internal locus of control (I-LOC). The added improvement observed among participants who received the MiCBT intervention in the current study may be attributed (at least in part) to one or all of the following factors, which were present for those who received MiCBT and not present for those who did not: The development of mindfulness skills via ongoing practice of mindfulness meditation (body scanning), the development of mindfulness skills informally, and the nature of the delivery of the MiCBT intervention.

The rationale for the use of mindfulness-based interventions with AOD addiction posits that the development of mindfulness skills – increased awareness and acceptance of thoughts, feelings, and sensations; and the ability to respond in a neutral way to these present-moment experiences – facilitates desensitisation to internal experiences that were previously triggers for AOD-use ‘action plans’, and helps to extinguish conditioned reactive habits (Breslin et al., 2002; Cayoun, 2011). Participants in the current study who received mindfulness training via MiCBT showed greater increases in mindfulness (as measured by the FFMQ) from baseline to follow-up than did the TAU group (see Figure 5). The FFMQ assesses five facets of mindfulness equated with ‘mindfulness skills’ – observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience – therefore it can be tentatively concluded that those who received MiCBT developed mindfulness skills to a greater extent than those who did not, and that the development of these mindfulness skills contributed to the other gains experienced by MiCBT participants.

Within MiCBT, the regular practice of mindfulness meditation is viewed as the vehicle for the development of mindfulness skills and hence positive outcomes (Cayoun, 2011). In the present study, at post-treatment, 87.5% of MiCBT-only participants and 87.5% of TAU+MiCBT participants were still meditating (31.2% and 43.8% were meditating daily, respectively). At six-month follow-up, 50% of MiCBT-only participants and 63.6% of TAU+MiCBT participants were still meditating (9% and 20% were meditating daily, respectively). The level of data collected in the present study regarding meditation practice does not allow for firm conclusions to be drawn as to the role of actual meditation practice in the improvements experienced by participants who received the MiCBT intervention.

However, participants who were meditating daily or more often at post-treatment in the current study were found to have significantly higher scores on the FFMQ at post-treatment than those who were meditating less than daily. This result shows that it was not just participation in the MiCBT intervention, but also daily personal practice of mindfulness meditation (as prescribed by MiCBT), that contributed to the development of mindfulness skills and the attendant benefits thereof.

Concerning the nature of the delivery of the MiCBT intervention in the current study: Participants were taught mindfulness principles and meditation techniques under the direction of *one* therapist for a period of eight weeks, allowing for consistency in the therapeutic relationship and coherence of material presented. Group sessions included group *practice* of the mindfulness meditation, allowing for learning to take place via repetition and modeling. The focus of the group sessions was on the acquisition of knowledge and skills for application in real-world settings, rather than on personal sharing and support.

The results of the current study are consistent with the findings of the Addictive Behaviors Research Center (Bowen, Witkiewitz, et al., 2006; Parks et al., 2003; Simpson et al., 2007; Witkiewitz, Marlatt, et al., 2005), in that participants who received the mindfulness training included in MiCBT reported decreased AOD use (in the form of lower AUDIT and DAST scores) at follow-up, and greater improvement over time on self-report measures of AOD use than participants who received only TAU (as evinced by larger effect sizes) – however differences between the treatment groups failed to reach statistical significance. The current study *did* find a statistically significant difference between MiCBT and TAU in the level of improvement over time on the depression scale of the DASS-21, this finding is in keeping with significant reductions in psychiatric symptoms (including depression)

among Vipassana participants but not among TAU participants (Bowen, Witkiewitz, et al.; Parks et al.; Simpson et al.; Witkiewitz, Marlatt, et al.).

The results of the current study also corroborate the findings of Marcus et al. (2003), in that levels of stress decreased significantly over time for all treatment groups, and participants who received MiCBT showed greater improvement over time than participants who received only TAU (as evinced by larger effect sizes) – however differences between the treatment groups failed to reach statistical significance. The effective reduction of stress in the therapeutic community setting is important, not just because stress is a risk factor for AOD relapse in general (Brewer, Sinha, et al., 2009), but also because poorer treatment outcomes in therapeutic communities are associated with the high levels of stress inherent to residential community environments (Liehr et al., 2010; Marcus et al.). A related issue relevant to the therapeutic community setting is that of high rates of dropout in the early stages of treatment. It is interesting to note, therefore, that the MiCBT-only treatment group in the current study showed the lowest drop-out rate during the eight-week treatment period, with 80% of those allocated to MiCBT-only completing the treatment period, compared to 67% for TAU (see Figure 1). However, the TAU+MiCBT treatment group displayed the highest dropout rate, with only 46% of those allocated completing the treatment period. As treatment dropouts did not differ significantly in any way apart from treatment group, it is likely that factors associated with the MiCBT-only and the TAU+MiCBT treatment groups contributed to these differential drop-out rates. It is possible that the TAU+MiCBT group resulted in a stressful ‘overload’ during the early stages of treatment for participants allocated to TAU+MiCBT, who were required to cope with extra group therapy sessions, more homework, and two streams of information (which may have been

contradictory in certain points). In contrast to TAU+MiCBT, participants allocated to the MiCBT-only treatment group received training in mindfulness skills from one therapist, and were immediately a part of a unique and focused small-group within the greater therapeutic community. In this way, participants in MiCBT-only may have been able to benefit more immediately from the potential of MiCBT stage one ‘internalising skills’ to directly address internal distress and crisis; without the distractions and pressures experienced by participants in TAU+MiCBT.

### *Limitations of the Current Study and Recommendations for Future Research*

The current study represents a prospective clinical trial in a real-world AOD treatment setting. A small sample size, high rates of dropout and non-completion of follow-up measures resulted in a lack of statistical power, as only 43% ( $n = 34$ ) of the 79 participants originally enrolled contributed data to the final analyses. Future research could address this issue by increasing sample size, possibly by running the study over a longer period of time and/or by running simultaneous MiCBT interventions facilitated by two or more therapists, and by offering incentives for participants to complete follow-up measures. It is recommended that future studies using small samples should control for baseline differences in depression, anxiety, and stress (as assessed in the current study using the DASS-21); where these differences exist in small to standard-size samples, random allocation may be less appropriate.

### *Conclusion*

In conclusion, the results of this study provided partial evidence that MiCBT is comparatively more efficacious than TAU in reducing the distress associated with AOD addiction and in increasing well-being. While the differences in mean scores

between treatment groups did not reach statistical significance for the majority of the dependent measures, large differences in effect sizes revealed that MiCBT has an additional effect over and above the substantial treatment effect achieved by TAU. Accordingly, the results of the study provide support for the use of MiCBT as a viable treatment option for AOD addiction within residential therapeutic communities.



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## Appendix A

### **MEDITATION**

**Time 1**

**Time 3**

**Time 5**

Participant No. \_\_\_\_\_

Date: \_\_\_\_\_

1. Have you ever meditated regularly in the past (before coming to Missiondale)?

**Yes    No**

2. Do you currently practice meditation?    **Yes    No**

If **Yes**, what type of meditation? \_\_\_\_\_

**Frequency of meditation practice:**

\_\_\_\_\_ **days per week,**

\_\_\_\_\_ **sessions per day,**

\_\_\_\_\_ **minutes per session.**

Please describe where and how you meditate: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



## Appendix B

### Five Facet Mindfulness Questionnaire

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

*The rating scale is as follows:*

**1** Never or very rarely true

**2** Rarely true

**3** Sometimes true

**4** Often true

**5** Very often or always true

- \_\_\_\_\_ 1. When I'm walking, I deliberately notice the sensations of my body moving.
- \_\_\_\_\_ 2. I'm good at finding words to describe my feelings.
- \_\_\_\_\_ 3. I criticize myself for having irrational or inappropriate emotions.
- \_\_\_\_\_ 4. I perceive my feelings and emotions without having to react to them.
- \_\_\_\_\_ 5. When I do things, my mind wanders off and I'm easily distracted.
- \_\_\_\_\_ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.
- \_\_\_\_\_ 7. I can easily put my beliefs, opinions, and expectations into words.
- \_\_\_\_\_ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.
- \_\_\_\_\_ 9. I watch my feelings without getting lost in them.
- \_\_\_\_\_ 10. I tell myself I shouldn't be feeling the way I'm feeling.
- \_\_\_\_\_ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.
- \_\_\_\_\_ 12. It's hard for me to find the words to describe what I'm thinking.
- \_\_\_\_\_ 13. I am easily distracted.
- \_\_\_\_\_ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.
- \_\_\_\_\_ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.
- \_\_\_\_\_ 16. I have trouble thinking of the right words to express how I feel about things.
- \_\_\_\_\_ 17. I make judgments about whether my thoughts are good or bad.
- \_\_\_\_\_ 18. I find it difficult to stay focused on what's happening in the present.
- \_\_\_\_\_ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.
- \_\_\_\_\_ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.
- \_\_\_\_\_ 21. In difficult situations, I can pause without immediately reacting.
- \_\_\_\_\_ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.
- \_\_\_\_\_ 23. It seems I am "running on automatic" without much awareness of what I'm doing.
- \_\_\_\_\_ 24. When I have distressing thoughts or images, I feel calm soon after.
- \_\_\_\_\_ 25. I tell myself that I shouldn't be thinking the way I'm thinking.
- \_\_\_\_\_ 26. I notice the smells and aromas of things.
- \_\_\_\_\_ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.
- \_\_\_\_\_ 28. I rush through activities without being really attentive to them.
- \_\_\_\_\_ 29. When I have distressing thoughts or images I am able just to notice them without reacting.
- \_\_\_\_\_ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.
- \_\_\_\_\_ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.
- \_\_\_\_\_ 32. My natural tendency is to put my experiences into words.
- \_\_\_\_\_ 33. When I have distressing thoughts or images, I just notice them and let them go.
- \_\_\_\_\_ 34. I do jobs or tasks automatically without being aware of what I'm doing.
- \_\_\_\_\_ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.
- \_\_\_\_\_ 36. I pay attention to how my emotions affect my thoughts and behavior.
- \_\_\_\_\_ 37. I can usually describe how I feel at the moment in considerable detail.
- \_\_\_\_\_ 38. I find myself doing things without paying attention.
- \_\_\_\_\_ 39. I disapprove of myself when I have irrational ideas.

Appendix C

## Severity of Dependence Scale (SDS)

For each of the following questions, please circle the response that best describes your experience during the past \_\_\_\_\_.

1. Did you think your substance use was out of control?

NEVER            SOMETIMES            OFTEN            ALWAYS/NEARLY ALWAYS

2. Did the prospect of not using the substance(s) make you anxious or worried?

NEVER            SOMETIMES            OFTEN            ALWAYS/NEARLY ALWAYS

3. Did you worry about your substance use?

NEVER            SOMETIMES            OFTEN            ALWAYS/NEARLY ALWAYS

4. Did you wish you could stop?

NEVER            SOMETIMES            OFTEN            ALWAYS/NEARLY ALWAYS

5. How difficult did you find it to stop using, or to go without the substance(s)?

NOT                      QUITE                      VERY                      IMPOSSIBLE  
DIFFICULT              DIFFICULT              DIFFICULT

## Appendix D

### The Alcohol Use Disorders Identification Test: Self-Report Version

**For each question, please circle the response that best describes your experience.**

1. How often do you have a drink containing alcohol?

|       |                    |                      |                     |                         |
|-------|--------------------|----------------------|---------------------|-------------------------|
| Never | Monthly<br>or less | 2-4 times<br>a month | 2-3 times<br>a week | 4 or more<br>times/week |
|-------|--------------------|----------------------|---------------------|-------------------------|

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

|        |        |        |        |            |
|--------|--------|--------|--------|------------|
| 1 or 2 | 3 or 4 | 5 or 6 | 7 to 9 | 10 or more |
|--------|--------|--------|--------|------------|

3. How often do you have six or more drinks on one occasion?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

4. How often during the last \_\_\_\_\_ have you found that you were not able to stop drinking once you had started?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

5. How often during the last \_\_\_\_\_ have you failed to do what was normally expected of you because of drinking?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

6. How often during the last \_\_\_\_\_ have you needed a first drink in the morning to get yourself going after a heavy drinking session?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

7. How often during the last \_\_\_\_\_ have you had a feeling of guilt or remorse after drinking?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

8. How often during the last \_\_\_\_\_ have you been unable to remember what happened the night before because of your drinking?

|       |                      |         |        |                          |
|-------|----------------------|---------|--------|--------------------------|
| Never | Less than<br>monthly | Monthly | Weekly | Daily or<br>almost daily |
|-------|----------------------|---------|--------|--------------------------|

9. Have you or someone else been injured because of your drinking?

|    |                                     |                                 |
|----|-------------------------------------|---------------------------------|
| No | Yes, but<br>not in the<br>last year | Yes,<br>during the<br>last year |
|----|-------------------------------------|---------------------------------|

10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

|    |                                     |                                 |
|----|-------------------------------------|---------------------------------|
| No | Yes, but<br>not in the<br>last year | Yes,<br>during the<br>last year |
|----|-------------------------------------|---------------------------------|

## Appendix E

### DAST (Drug Abuse Screening Test)

**For each of the following questions, please circle the response that best describes your experience during the past 5 months.**

|  |     |    |
|--|-----|----|
| 1. Have you used drugs other than those required for medical reasons?  | Yes | No |
| 2. Have you abused prescription drugs?   | Yes | No |
| 3. Have you abused more than one drug at a time?   | Yes | No |
| 4. Could you get through a week without using drugs (other than those required for medical reasons)?                     | Yes | No |
| 5. Were you always able to stop using drugs when you wanted to?  | Yes | No |
| 6. Did you abuse drugs on a continuous basis?  | Yes | No |
| 7. Did you try to limit your drug use to certain situations?   | Yes | No |
| 8. Have you had "blackouts" or "flashbacks" as a result of drug use?   | Yes | No |
| 9. Did you ever feel bad about your drug abuse?  | Yes | No |
| 10. Did your partner (or parents) ever complain about your involvement with drugs?                                       | Yes | No |
| 11. Did your friends or relatives know or suspect you abuse drugs?   | Yes | No |
| 12. Has drug abuse created problems between you and your partner?  | Yes | No |
| 13. Has any family member sought help for problems related to your drug use?   | Yes | No |
| 14. Have you lost friends because of your use of drugs?  | Yes | No |
| 15. Have you neglected your family or missed work because of your use of drugs?  | Yes | No |
| 16. Have you been in trouble at work because of drug abuse?  | Yes | No |
| 17. Have you lost a job because of drug abuse?   | Yes | No |
| 18. Have you gotten into fights when under the influence of drugs?   | Yes | No |
| 19. Have you been arrested because of unusual behaviour while under the influence of drugs?                              | Yes | No |
| 20. Have you been arrested for driving while under the influence of drugs?   | Yes | No |
| 21. Have you engaged in illegal activities to obtain drugs?  | Yes | No |
| 22. Have you been arrested for possession of illegal drugs?  | Yes | No |
| 23. Have you experienced withdrawal symptoms as a result of heavy drug intake?   | Yes | No |
| 24. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, or bleeding)? | Yes | No |
| 25. Have you gone to anyone for help for a drug problem?   | Yes | No |
| 26. Have you been in hospital for medical problems related to your drug use?   | Yes | No |
| 27. Have you been involved in a treatment program specifically related to drug use?                                      | Yes | No |
| 28. Have you been treated as an outpatient for problems related to drug abuse?   | Yes | No |

## Appendix F

### Depression, Anxiety and Stress Scales (DASS)

**Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past 5 months*. There are no right or wrong answers. Do not spend too much time on any statement.**

***The rating scale is as follows:***

**0 Did not apply to me at all**

**1 Applied to me to some degree, or some of the time**

**2 Applied to me to a considerable degree, or a good part of time**

**3 Applied to me very much, or most of the time**

|     |  |   |   |   |   |
|-----|--|---|---|---|---|
| 1.  | I found it hard to wind down   | 0 | 1 | 2 | 3 |
| 2.  | I was aware of dryness of my mouth   | 0 | 1 | 2 | 3 |
| 3.  | I couldn't seem to experience any positive feeling at all  | 0 | 1 | 2 | 3 |
| 4.  | I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)           | 0 | 1 | 2 | 3 |
| 5.  | I found it difficult to work up the initiative to do things  | 0 | 1 | 2 | 3 |
| 6.  | I tended to over-react to situations   | 0 | 1 | 2 | 3 |
| 7.  | I experienced trembling (eg, in the hands)   | 0 | 1 | 2 | 3 |
| 8.  | I felt that I was using a lot of nervous energy  | 0 | 1 | 2 | 3 |
| 9.  | I was worried about situations in which I might panic and make a fool of myself  | 0 | 1 | 2 | 3 |
| 10. | I felt that I had nothing to look forward to   | 0 | 1 | 2 | 3 |
| 11. | I found myself getting agitated  | 0 | 1 | 2 | 3 |
| 12. | I found it difficult to relax  | 0 | 1 | 2 | 3 |
| 13. | I felt down-hearted and blue   | 0 | 1 | 2 | 3 |
| 14. | I was intolerant of anything that kept me from getting on with what I was doing  | 0 | 1 | 2 | 3 |
| 15. | I felt I was close to panic  | 0 | 1 | 2 | 3 |
| 16. | I was unable to become enthusiastic about anything   | 0 | 1 | 2 | 3 |
| 17. | I felt I wasn't worth much as a person   | 0 | 1 | 2 | 3 |
| 18. | I felt that I was rather touchy  | 0 | 1 | 2 | 3 |
| 19. | I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat) | 0 | 1 | 2 | 3 |
| 20. | I felt scared without any good reason  | 0 | 1 | 2 | 3 |
| 21. | I felt that life was meaningless   | 0 | 1 | 2 | 3 |

## Appendix G

### Locus of Control Scale

Please rate each of the following statements using the scale provided. The statements represent opinions, and there are no right or wrong answers. Write the number in the blank that best describes your own opinion about each statement.

*The rating scale is as follows:*

**-3 Strongly Disagree**

**-2 Disagree**

**-1 Slightly Disagree**

**1 Slightly Agree**

**2 Agree**

**3 Strongly Agree**

- \_\_\_\_\_ 1. Whether or not I get to be a leader depends mostly on my ability.
- \_\_\_\_\_ 2. My life is controlled by accidental happenings to a great extent.
- \_\_\_\_\_ 3. I feel that what happens in my life is mostly determined by powerful people
- \_\_\_\_\_ 4. Whether or not I get into a car accident depends mostly on how good a driver I am.
- \_\_\_\_\_ 5. When I make plans, I am almost certain to make them work.
- \_\_\_\_\_ 6. Often there is no chance of protecting my personal interests from bad luck
- \_\_\_\_\_ 7. When I get what I want, it's usually because I'm lucky.
- \_\_\_\_\_ 8. Even if I have good ability, I won't be given leadership responsibility unless I appeal to those in positions of power.
- \_\_\_\_\_ 9. How many friends I have depends on how nice a person I am.
- \_\_\_\_\_ 10. I have often found that what is going to happen will happen.
- \_\_\_\_\_ 11. My life is mainly controlled by powerful others.
- \_\_\_\_\_ 12. Whether or not I get into a car accident is mostly a matter of luck.
- \_\_\_\_\_ 13. People like me have very little chance of protecting our personal interests against the conflicting interests of strong pressure groups.
- \_\_\_\_\_ 14. It doesn't always work for me to plan too far ahead because many things turn out to be a matter of good or bad luck.
- \_\_\_\_\_ 15. Getting what I want means pleasing those people in positions of power.
- \_\_\_\_\_ 16. Whether or not I get to be a leader depends on whether I'm lucky enough to be in the right place at the right time.
- \_\_\_\_\_ 17. If important people decided that they didn't like me, I probably wouldn't make many friends.
- \_\_\_\_\_ 18. I can pretty much determine what will happen in my life.
- \_\_\_\_\_ 19. I am usually able to protect my personal interests.
- \_\_\_\_\_ 20. Whether or not I get into a car accident depends mostly on the other driver
- \_\_\_\_\_ 21. When I get what I want, it's usually because I worked hard for it.
- \_\_\_\_\_ 22. In order to make my plans work, I make sure that they fit in with the desires of people who have power over me.
- \_\_\_\_\_ 23. My life is determined by my own actions.
- \_\_\_\_\_ 24. It's mainly a matter of fate whether I have a few friends or many friends.



10 August 2009

## INFORMATION SHEET

### *The effect of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) on the experience of addiction*

We would like to invite you to take part in a research project investigating the effectiveness of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) as a treatment for addiction to alcohol and other drugs (AOD). MiCBT is a 4-stage therapeutic approach which integrates mindfulness and some of the basic principles of Cognitive Behaviour Therapy (CBT). The practice of 'mindfulness' involves purposefully and non-judgmentally paying attention to our present experiences instead of reacting with old habits. This research project is being conducted by Kylie Wickham, under the supervision of Dr Bruno Cayoun, as part of the requirements of a Master of Psychology degree at the University of Tasmania.

#### ***What is the purpose of this research?***

The purpose of this research is to compare MiCBT to the usual Missiondale program ('treatment as usual') in order to evaluate the effectiveness of MiCBT as a treatment for addictions. In other words, we aim to investigate whether MiCBT is effective in lowering levels of distress and raising levels of well-being among people experiencing AOD addiction.

#### ***Who is being invited to participate?***

Over the next several months, new clients of Missiondale Recovery Centre will be invited to take part in this research. Missiondale clients will be over 18 years of age and will have experience with AOD addiction.

#### ***What would I have to do?***

If you choose to be a part of this research, you will firstly be informed about the Missiondale Policies and Procedures Manual with a Missiondale staff member. Afterwards, you will be randomly allocated to one of three treatment conditions. This means that participants are not able to choose which treatment condition they are allocated to – if you choose to take part in this research, you may end up in any one of the following three treatment conditions.

The first condition involves people receiving eight weeks of MiCBT only, during which time they would not take part in the usual Missiondale group therapy program. In this condition, people will receive two and a half hours of MiCBT per week, delivered by Kylie (who has received training in the implementation of MiCBT by Dr Bruno Cayoun, the developer of MiCBT). After the eight weeks of MiCBT, people can begin the usual Missiondale therapy program.

The second condition involves people receiving eight weeks of MiCBT plus the usual Missiondale therapy program. In this condition, people will receive two and a half hours of MiCBT per week, delivered by Kylie, plus two and a half hours per

week of group and individual therapy within the usual Missiondale program, delivered by Missiondale staff (including Kylie). After the eight weeks of MiCBT plus usual Missiondale program, people can continue the usual Missiondale therapy program without further MiCBT.

The third condition will involve people receiving eight weeks of the usual Missiondale therapy program, without any MiCBT. In this condition, people will receive two and a half hours per week of group and individual therapy within the usual Missiondale therapy program, delivered by Missiondale staff (including Kylie). After the 8 weeks, people will simply continue the usual Missiondale therapy program if they wish.

Both MiCBT and the usual Missiondale therapy program require you to complete some exercises in your own time. Specifically, MiCBT requires participants to commit to practising mindfulness training for half an hour twice daily, using recorded instructions to make the exercise easier.

**Please note** that if you choose to take part in this research, regardless of which treatment condition you are allocated to, you will remain a client of Missiondale so long as you reside at Missiondale. As such, you will be entitled to the same rights as all residents of Missiondale, and you will also be expected to fulfill your responsibilities to the Missiondale community and to abide by the Missiondale Policies and Procedures Manual at all times. While participating in the research project you would continue to take part in community activities (such as outings), and in case management meetings as required by Missiondale management.

#### ***How will the research data be collected?***

Taking part in this research would also require you to complete six short and simple questionnaires about your mood, AOD use, and coping skills (with Kylie's assistance if required). These questionnaires will be completed at five different points in time: During your first week at Missiondale, four weeks (one month) after your arrival at Missiondale, eight weeks (two months) after your arrival at Missiondale, three months after your arrival at Missiondale, and eight months after your arrival at Missiondale.

Should you choose to leave Missiondale during the eight-week treatment period, your data would be withdrawn from the research. If you choose to leave Missiondale after eight weeks, but would like to continue to take part in this research, the questionnaires at three months and eight months after your arrival at Missiondale may be completed outside of Missiondale.

#### ***Can I decide not to take part in this research project?***

It is important that you understand that your involvement in this study is voluntary. While we would be very pleased if you choose to take part, you are free to choose not to do so. There will be no consequences if you choose not to participate in this research – this will not affect your treatment or rights as a client of Missiondale. Further, if you choose to participate but later change your mind, you are free to leave the research at any time without providing an explanation, and there will be no consequences – your treatment and rights as a client of Missiondale will not be affected if you should choose to remain at Missiondale after leaving the research. Also, should you choose to leave the research, you are able to withdraw any information that has already been collected from you.



***How will my privacy be protected?***

All information will be treated in a confidential manner, and your name will not be used in any publication arising out of the research. Further, information provided by you in the questionnaires will not be directly linked to your name and will not affect your treatment as a client of Missiondale in any way (i.e. the information will be used for research purposes only and will not be provided to Missiondale management). Kylie will obtain some basic information about you (such as your age, gender, and level of education) from your Missiondale client file – this information will be stored in a securely locked area. If you choose to leave Missiondale after completing eight weeks in your assigned treatment condition, but you would like to remain in the research, Kylie will ask that you provide some contact details so that she can arrange with you to complete any remaining questionnaires – your contact details will be stored in a securely locked area. All of the research data will be stored securely for five years after the date of publication in locked cabinets/computer servers in the School of Psychology (University of Tasmania), and then destroyed by shredding or deletion.

***What are the possible risks and benefits from taking part in this research?***

There are no specific risks anticipated with participation in this research, however most treatments for AOD addiction would be expected to involve a possible small degree of anxiety in some participants.

Regarding the benefits, it is possible that you will experience decreased levels of distress and increased levels of well-being as you receive treatment for AOD addiction – regardless of which treatment condition you are allocated to. Further, the results of this research may contribute to the development of more effective treatment programs for AOD addiction in the future.

***What if I have questions about this research?***

If you would like more information about this research project, please contact Dr Bruno Cayoun on 0362248448, or speak to Kylie Wickham at Missiondale (0363918013). Everyone who participates in this research will be given the opportunity to see the final results once the research has been completed.

***Will I be able to see the final results of this research?***

The results of the study will be posted on the City Mission website when the research is completed.

[www.citymission.org.au](http://www.citymission.org.au)

***Does this research have ethical approval?***

This study has been approved by the Tasmanian Social Science Human Research Ethics Committee (HREC). If you have concerns or complaints about the conduct of this research study, you should contact the Executive Officer of the HREC (Tasmania) Network on 0362267479 or email [human.ethics@utas.edu.au](mailto:human.ethics@utas.edu.au).

**Thank you for taking the time to consider participating in this research.**

**If you wish to take part, please sign the attached consent form.**

**This information sheet is for you to keep.**

10 August 2009



**CONSENT FORM**

***The effect of Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) on the experience of addiction.***

1. I have read and understood the 'Information Sheet' for this research project.
2. The nature of the research and its possible effects have been explained to me.
3. I understand that the study involves completing eight weeks of treatment (two and a half - five hours per week) in one of the following three conditions: Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) only, MiCBT plus the normal Missiondale program ('treatment as usual'), or Treatment as Usual (TAU) only. I understand that I will be randomly allocated to one of these conditions. I understand that the study also involves completing six questionnaires at five different points in time during the next eight months.
4. I understand that all research data will be securely stored on the University of Tasmania premises for at least five years, and will then be destroyed.
5. Any questions that I have asked have been answered to my satisfaction.
6. I agree that research data gathered from me for the study may be published provided that I cannot be identified as a participant.
7. I understand that the researchers will maintain my identity confidential and that any information I supply to the researchers will be used only for the purposes of the research.
8. I agree to participate in this research project and understand that I may withdraw at any time without any consequences, and that I may request that any data I have supplied to date be withdrawn from the research.

Name of Participant: \_\_\_\_\_

Signature of Participant: \_\_\_\_\_ Date: \_\_\_\_\_

**Statement by Investigator:**

I have explained the project and the implications of participation in it to this volunteer and I believe that the consent is informed and that he/she understands the implications of participation.

Name of Investigator: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

## Appendix J

### MiCBT Materials

Stage One of the MiCBT program comprises the first four weeks of therapy and centres on the acquisition of “internalising skills” – self-awareness, self-acceptance, and equanimity towards internal experience. Topics covered during stage one include: Introduction to the MiCBT program and to the concept of mindfulness, mindfulness of breath meditation (theory and practice), the Co-emergence Model of Reinforcement as a rationale for body scanning meditation, the concepts of ‘equanimity’ and the ‘omnipresence of impermanence’, introduction to the concept of neuroplasticity and a discussion of the differing effects of avoidance and exposure.

Stage Two of the MiCBT program comprises two weeks of therapy and centres on the attainment of exposure skills in order to face difficult situations with greater efficacy. Other topics covered during stage two include: The concepts of ‘experiential ownership’ and ‘hypothesising about others’ body states’ – mindfulness skills applied to interpersonal situations.

Stage Three of the MiCBT program comprises week seven of therapy, during which participants practice assertiveness skills and are introduced to the practice of loving-kindness meditation as an expression of ‘grounded empathy’. Stage Four of the MiCBT program comprises week eight of therapy, during which participants review goal achievement and discuss relapse prevention.

## **WEEK 1 GROUPS – SESSION OUTLINES**

**AIM:** To introduce MiCBT and the principles of mindfulness, and to establish commitment to daily practice

**MATERIALS FOR GROUP SESSIONS:** Whiteboard markers, CD player and stage 1 CD, copies of CDs for clients, attendance sheet, handouts, document books.

### **WEEK 1 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet. Distribute handouts and document books.
2. Introduction to MiCBT:
  - What is MiCBT? – handout
  - The need for 3 commitments – attend each group and 1:1 session, make time for twice daily practice outside of group, maintain confidentiality and respect.
  - Explain the structure of weekly group sessions – group practice, feedback, topic of the week to learn, explanation of homework tasks.
  - What is Mindfulness? – write Kabat-Zinn’s definition on whiteboard. Use handout.
  - Three ways of Learning – handout.
  - Four stages of MiCBT – use handout and see notes.
3. Goal setting for the group – use whiteboard. **KEEP A WRITTEN COPY. Refer to the cost involved in learning mindfulness skills – the benefits are achieving these goals using mindfulness skills as a vehicle for change.**
4. Explain the practice and rationale for PMR.
5. Group practice of PMR using track 4 of stage 1 CD (ensure instructions are understood).
6. Explain homework and set-up for home practice. Negotiate when and where practice will occur – use handout and see notes. Distribute CDs.
7. Homework:
  - Listen to tracks 1, 2, & 3 of stage 1 CD **TWICE**.
  - Use track 4 of stage 1 CD to practice PMR **TWICE DAILY**.

### **WEEK 1 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Complete PMR feedback form and ask for clients’ feedback on the first part of the week and their experience with PMR.
3. Complete any points not completed during the first group for week 1.
4. Rationale for Mindfulness with Breathing
5. Group practice of mindfulness of breath using track 6 of stage 1 CD.
6. Explain homework) and distribute forms.

## 7. Homework:

- Use tracks 4, 5, & 6 of stage 1 CD to practice PMR and Mindfulness of Breath **TWICE DAILY**.
- Fill out Daily Schedule form.

## **Week One Handout**

### **What is MiCBT?**

- Mindfulness-integrated Cognitive Behaviour Therapy (MiCBT) involves training in mindfulness skills **and** the principles of Cognitive Behaviour Therapy (CBT).
- Mindfulness training brings **balance** between rational/neutral processing and judgemental/automatic processing in our minds.
- Learning mindfulness skills helps to reduce distress, anxiety and depression.
- Learning mindfulness skills helps to **change** “reactive habits” (cycles of addiction).
- Central principles of the mindfulness approach are Equanimity and Impermanence.
- **Equanimity** means responding in a \_\_\_\_\_ way to what we experience from moment to moment. It is a state of awareness where we neither feel an aversion for unpleasant experiences nor craving for pleasant ones.
- **Equanimity** gives us the ability to remain less reactive and \_\_\_\_\_ no matter what we experience, thereby giving us a feeling of ease, self-control and composure as we go about our daily lives.
- **Impermanence** relates to the \_\_\_\_\_ nature of all things including our own mental and emotional experiences. By experiencing the changing nature of internal experiences, we can learn to see ourselves in a more \_\_\_\_\_ and scientific way.
- Formal training by way of sitting meditation is most effective for developing mindfulness skills. During mindfulness meditation we sit with our eyes closed and focus our attention on our breath and/or our body sensations. We learn to see thoughts as just thoughts, and body sensations as just body

sensations. **We learn that our experiences cannot affect us (harm us) unless we react to them.**

- Mindfulness training will require 3 commitments:
  1. \_\_\_\_\_ each group and 1:1 session.
  2. \_\_\_\_\_ time for twice daily practice outside of group.
  3. Maintain confidentiality and \_\_\_\_\_
- Each group will include mindfulness practice, feedback, learning/reviewing topics, setting “homework”.

### **What is Mindfulness?**

- Mindfulness involves **paying attention**:
  1. \_\_\_\_\_
  2. In the \_\_\_\_\_
  3. \_\_\_\_\_
  4. Understanding that \_\_\_\_\_

### **WEEK 2 GROUPS**

**AIM:** A good understanding of the co-emergence model of reinforcement (resulting in participants’ taking more responsibility for their thoughts, feelings, and reactions). A good understanding of equanimity (resulting in increased levels of acceptance of internal experiences and being more aware and comfortable with common triggers).

**MATERIALS FOR GROUP SESSIONS:** Whiteboard markers, CD player and stage 1 CD, attendance sheet, session outline and notes, handouts (“Dealing with Difficulties”, “MiCBT Week 2”, “Diary of Reactive Habits”, “Daily Schedule” form).

### **WEEK 2 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group practice of mindfulness of breath using track 6 of CD 1 or script
3. Feedback on past few days – practice and life (see notes). Use “MiCBT Week 2” Handout, and “Dealing with Difficulties” handout if necessary to stimulate discussion.
4. Explain the causes of intrusive thoughts and the extinction of intrusive thoughts:

- Explain distractibility during practice as “temporal jumps” – **Everyone** who attempts mindfulness training confronts the difficulty of being distracted by unwanted thoughts. While the practice of mindfulness requires sustained attention to what is happening within the body and mind from moment to moment, our attention seems to naturally “jump” to the past or the future. Look at “Dealing with Difficulties” handout (“3-second rule”). (Normalise distractibility and reassure participants – they must be practicing well in order for difficulties to arise.)
  - Describe neural networks competing for access to the level of conscious awareness (relate to rationale from last group). (See notes and handout, use whiteboard.)
  - Explain thought suppression using the “bear experiment” (see p. 120 of Handbook). Explain why the thought of the bear keeps intruding in terms of the strength of neural network activation –the more intensely they activated networks to think about the bear, the more intrusions. Staying with the breath doesn’t mean having no thoughts, but it means not getting caught up in them.
5. Explain the omnipresence of impermanence (see notes, use whiteboard).
  6. Discuss equanimity (handout, use whiteboard).
  7. Explain homework (continue homework given last group) – include the 3 points from last page of rationale for mindfulness of breath if not already covered.

## **WEEK 2 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group practice of mindfulness of breath using track 6 of CD 1 or script (5 mins).
3. Review homework and Feedback on past few days – practice and life (see notes, use forms).
4. Rationale for Body Scanning using 5 components of co-emergence model (see notes, use “Diary of Reactive Habits” handout and whiteboard) – using an example of an experience shared by a participant.
5. Explain homework (see notes) and distribute forms.
6. Homework:
  - Practice mindfulness of breath with/without CD (track 6) **TWICE DAILY**.
  - Remain equanimous in bed for a few minutes before falling asleep and upon waking before getting out of bed.
  - Record 2 stressful events with the “Diary of Reactive Habits” handout.
  - Fill out “Daily Schedule” form.

## **Week 2 Handout**

**Feedback discussion questions:**

- How many times were you able to practice the PMR/Mindfulness of Breath exercise since last group?
- When and where?
- What difficulties did you experience? (With the homework and with life in general.)
- Did you notice any benefits or positive experiences?
- If you are struggling to find 1 hour per day for the mindfulness practice, what **would** you find 1 hour for?
- What would need to happen (what would you need to do) for you to increase your number of practice sessions for the rest of the week?

**Struggling with intrusive thoughts:**

- **Everyone** who attempts mindfulness training will confront the difficulty of being distracted by unwanted thoughts.
- Mindfulness practice requires us to keep our attention within the present moment, but our attention seems to naturally “jump” to the past or future – this is **normal** while we are in the early stages of learning mindfulness skills.
- Mindfulness training brings **balance** between rational/neutral processing and judgemental/automatic processing in our minds.
- Look at the “Dealing with Difficulties” information sheet.

**“Neural Networks Competing for Access to the Level of Conscious Awareness – 3 Causes of High Network Activation”**

- “Neural Networks” – pathways in the brain.
- As we reduce external inputs during mindfulness practice, internal information begins to be processed, and uninvited thoughts continually come to mind.
- These thoughts will emerge according to the strength of their activation in the brain.
- As we relax and attend to our breath with equanimity, the neural networks with the strongest activation emerge first in our consciousness.
- There are 3 factors that contribute to the strength of activation:
  1. Frequency.
  2. Recency.
  3. Personal meaning.
- Frequency - thoughts pop up because of pathways in the brain that are frequently used.
- Recency - thoughts pop up because of pathways in the brain that have been recently used.



- Personal meaning - feeling a particular sensation can cause memories to pop up “out of nowhere” – because of pathways in the brain that are associated with the sensation.

### **“Equanimity”**

- Feel more, react less – the ability to remain aware and non-reactive towards body sensations and thoughts as a result of neutral observation.
- “Equanimity” means balance, composure, calmness, level-headedness, and self-control.
- Equanimity means becoming more objective and scientific about our own experiences.
- Equanimity allows us to observe our thoughts and feelings without avoiding or clinging to them, without judging them, without wishing them to be gone/different.
- The attitude of equanimity is one of acceptance and letting-go – no aversion, no craving.
- The more equanimous we become, the less reactive we become.
- With practice of mindfulness meditation, equanimity develops and it is possible to acquire a more objective view and greater acceptance of our internal experiences, however unpleasant they may be.
- The more discomfort we process while maintaining equanimity, the more the brain learns to process stressful information rationally and with less discomfort.

### **WEEK 3 GROUPS**

**AIM:** Deepen participants’ understanding of interoception and equanimity.

**MATERIALS:** Whiteboard markers, CD player and stage 1 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts.

### **WEEK 3 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group practice of Mindfulness of Breath (10 mins) using shortened version of the script for Mindfulness of Breath.
3. Complete/review the “Rationale for Body Scanning Using the 5 Components of the Co-emergence Model” – incorporate homework feedback (“Diary of Reactive Habits” – 2 stressful events).
4. “MiCBT Week 3” Handout:
  - Feedback on past few days. Explain the notion of prioritising.

- Discuss the Hedonic Continuum with 3 main ways of experiencing body sensations – draw continuum on whiteboard.
  - Discuss the 4 basic characteristics of body sensations – draw each continuum on whiteboard (see notes).
5. Homework – continue that given last week (re-explain and answer any questions).

### **WEEK 3 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group practice of Mindfulness of Breath (10 mins) using shortened version of the script for Mindfulness of Breath.
3. Review homework given Week 2, Group 2. Feedback on last few days (see notes on Feedback).
4. Group practice of Part-by-Part Body Scanning using tracks 7 & 8 of the stage 1 CD (30 mins).
5. “MiCBT Week 3” Handout: Describe “informal practice” and its role in generalising the skills (see notes).
6. Distribute forms and explain homework (see below).
7. **Encourage participants to make a strong effort to MAKE time for twice daily practice of body scanning – the more we practice the better the results will be. Regular practice is effective in “re-programming” pathways in the brain and establishing new habits. Changing habits takes time and practice – habits are established over time and with repetition. If anyone has goals that relate to changing habits, to not being controlled by thought patterns and emotional reactions – then practicing body scanning is about achieving your goals!!!**
8. Homework:
  - Practice Part-by-Part Body Scanning using tracks 7 & 8 of the stage 1 CD **TWICE DAILY.**
  - Fill in “Daily Schedule” form.
  - Informal Practice – be aware of body sensations throughout the day, practice mindfulness of breath.
  - Pre- and post-sleep awareness.
  - Record stressful events with the “Diary of Reactive Habits” handout.

### **Week 3 Handout**

#### **Feedback discussion questions:**

- How many times were you able to practice the Mindfulness of Breath exercise since last group? \_\_\_\_\_

- For how long each time? \_\_\_\_\_
- What do you think about this statement: “People do first what will be most rewarding or least punishing for them. This is why we prioritise activities the way we do – our experience with the practice this week was no different.”
- What difficulties did you experience? (With the homework and with life in general.) \_\_\_\_\_
- Did you notice any benefits or positive experiences? \_\_\_\_\_

### **How we experience body sensations:**

- We experience body sensations along a continuum in 3 main ways – pleasant, neutral, and unpleasant.
- Any sensation we experience along this continuum can also be described in terms of 4 basic characteristics – mass, temperature, motion, and cohesiveness.
- Each of these 4 characteristics also varies along a continuum.
- The 4 characteristics continuously interact during our experience, making up many different combinations.
- These 4 characteristics can only be appraised perceptually, **not judgementally** (remember the “5 boxes”!) – the ability to appraise body sensations perceptually increases with increasing equanimity.

### **“From catastrophic wholes to acceptable parts”!**

- Describing our emotions in a more objective way (using the 4 characteristics) makes them much less frightening and much more manageable.
- In sum, an emotion is the experience of the combination of intense thoughts and associated body sensations (remember the “5 boxes”!)
- Emotions arise and pass away naturally as we learn to let the thoughts go, and accept the body sensations **as they are** (not as we interpret them to be).
- **All of our internal problems are simply sets of sensations that can be objectively described and coped with.**

### **“Informal Practice”**

- Informal practice is extending the skills we are learning in our formal practice to daily life.

- From now on, attempt to apply your awareness of thoughts and body sensations in as many day-to-day situations as possible (walking, eating, resting, working etc) – **live mindfully for the entire week!**

## **WEEK 4 GROUPS**

**AIM:** Introduce stage 2, CBT components of MiCBT, and the concept of neuroplasticity through the introduction of advanced scanning methods.

**MATERIALS:** Whiteboard markers, CD player and stage 1 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts, coloured pencils for Interoception forms.

### **WEEK 4 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group practice of Body Scanning (10 mins) using shortened version of the script for Part-by-Part Body Scanning.
3. Distribute Interoception Forms (front and back) – explain and fill in. Discuss completed forms. Collect Interoception Forms.
4. “MiCBT Week 4” Handout:
  - Feedback on past few days. Give participants a few minutes to fill out feedback questions, then discuss.
  - Discuss skill transfer through neuroplasticity (see notes).
5. Homework – continue that given last group.

### **WEEK 4 GROUP 2 SESSION OUTLINE**

1. Fill in attendance sheet.
2. Group practice of Body Scanning (10 mins) using shortened version of the script for Part-by-Part Body Scanning.
3. Distribute and fill in Interoception Forms (front and back). Discuss – “Addressing Blanks”. Collect forms.
4. “MiCBT Week 4” Handout:
  - Feedback on past few days (practice and life). Point to the best measure of progress – duration of reaction.
  - “DO NOT MOVE”.
  - Describe awareness thresholds using the whiteboard to draw graph (see notes).
5. Homework – continue that given last group.

### **WEEK 4 GROUP 3 SESSION OUTLINE**

- Fill in attendance sheet.
- Group practice of Part-by-Part Body Scanning (10 mins) giving brief instructions: “Start scanning the entire body part-by-part, remaining alert,

attentive, and very equanimous no matter what you experience...Remain aware, attentive, and keep moving through the entire body...Feel, accept, move on..."

- Distribute and fill in Interoception Forms (front and back). Collect forms.
- Review homework given Week 3 Group 2.
- Introduce **Stage 2** of MiCBT:
  - Link mindfulness training to CBT – “MiCBT Week 4” Handout.
  - Distribute SUDS form. Explain “SUDS”. Ask participants to fill in the form using real and concrete issues – refer back to goals for ideas. Give guidance re: choice of issues and ranking.
  - Explain “experiential equivalence” between imagery and real life. Conduct timing experiment: Ask one of the group participants to stand against the back wall of the room while you set the watch. Ask another group member to verify that the watch is set to zero. Ask the standing person to have a good impression of the distance from where s/he stands to the opposite wall across the room. The client must be told that in a minute, you will ask the client to close his or her eyes and imagine that s/he walks across the room with a normal pace. Then you will ask the client to lift the non-dominant hand (in reality) when the dominant hand touches the wall at arrival (in imagination), and that you will stop the watch then. When instructions are clear, proceed with the task, then ask another participant to witness (silently) the time on your watch. Write it down. Then ask your walking participant to do the walk for real this time, and time him/her again. Generally, with a 7 to 12 metre-long room, the accuracy with which people match their walking speed is less than 0.1 second.
  - Explain “bipolar exposure”, draw timeline and normal distribution on whiteboard – “MiCBT Week 4” Handout.
- Explain target exposure (time 1) – ask participants to choose 2 mildly/moderately distressing items. Starting with the least-distressing item, they will first use bipolar (imaginal) exposure to the item for 4 sessions, then they expose to the item in real life. After this, they do the same with the second item chosen. **Reiterate the central role of equanimity towards body sensations in achieving full desensitisation. Remember – no matter what or how much is felt, we are able to remain equanimous in practice.**
- Homework:
  - Practice Part-by-Part Body Scanning with/without track 8 Stage 1 CD **TWICE DAILY.**
  - Informal practice – fill in the Interoceptive Signature Form/Interoceptive Signature Pocket Form 5 times during the week.

- Pre- and post-sleep awareness.
- Commitment to physical immobility during formal practice.
- Bipolar and real-life exposure to 2 SUDS targets.
- Fill in Daily Schedule form.

## **Week 4 – Part 1 Handout**

### **Feedback discussion questions:**

- How many times were you able to practice Part-by-Part Body Scanning since last group? \_\_\_\_\_
- For how long each time? \_\_\_\_\_
- How did you feel after your practice sessions? \_\_\_\_\_
- What did you notice about your body sensations and associated thoughts?  
\_\_\_\_\_
- What difficulties did you experience during mindfulness practice?  
\_\_\_\_\_
- **Experiencing difficulties is a sign that you are practicing well!**
- These difficulties were not caused by practicing mindfulness meditation; they were there underneath all along.
- Practicing mindfulness meditation allows us to experience thoughts and emotions (body sensations) that we were not aware of previously – so we have the opportunity to face them and “re-process” them.
- Mindfulness training welcomes discomfort and uses it as a tool in order to desensitise from it.
- This means that **“sometimes things get worse before they get better”**.
- The more discomfort we process while maintaining equanimity, the more the brain learns to process stressful information rationally and with less distress.
- Learning to observe our own body sensations without trying to terminate them if they are unpleasant or prolong them if they are pleasant allows us to break habits!

### **“Neuroplasticity”**

- When we are very distressed, it is very difficult to use the “executive functions” in the frontal lobe to challenge negative thoughts and deal with negative emotions while the brain is processing information in “emotional pathways”, where much of the accessible information is experienced through body sensations.
- It is easier in the beginning to deal with distress by operating directly on emotional arousal by remaining aware and equanimous towards body

sensations, than it is by trying to access automatic thoughts using the executive functions in the frontal lobe of the brain.

- **The daily effort to improve the practice of body scanning places ongoing demands on the brain pathways in the somatosensory cortex and prefrontal inhibitory areas of the brain, leading the brain to make new connections between neurons and strengthen already existing ones in these regions.**
- The development of new connections in the brain allows the skill of feeling while not reacting to transfer to day-to-day situations. It also increases the ability to feel more subtle body sensations and to detect early cues of distress, making us able to cope better with common stressors.

## **Week 4 – Part 2 Handout**

### **Feedback discussion questions:**

- How many times were you able to practice Part-by-Part Body Scanning since last group? \_\_\_\_\_
- For how long each time? \_\_\_\_\_
- How did you feel after your practice sessions?
- What did you notice about your body sensations and associated thoughts?  
\_\_\_\_\_

### **Awareness Thresholds**

- \_\_\_\_\_ of unpleasant internal experiences involves moving the threshold of awareness \_\_\_\_\_. The unpleasant experience remains unattended, in the background, and we feel better.
- Some avoidance strategies: \_\_\_\_\_
- While ever an unpleasant internal experience is \_\_\_\_\_ to us, we will keep using the avoidance strategies that have worked for us.
- However, when we adapt to the effects of the avoidance strategy (tolerance), the strength of our internal experience exceeds our threshold of awareness, and we need to step up our avoidance strategies to raise the level of awareness even further.
- Using avoidance strategies means that we don't become aware of our internal experience until it is already intense and hard to manage, and we have very little time to respond before the experience reaches peak intensity.

- On the other hand, \_\_\_\_\_ to and \_\_\_\_\_ of naturally occurring unpleasant body sensations moves the threshold of awareness \_\_\_\_\_.
- Practicing Body Scanning gives us opportunity to appraise internal events with \_\_\_\_\_. In this way, our own internal experience becomes less \_\_\_\_\_ and more \_\_\_\_\_.
- A lower threshold of awareness allows us to become aware of the subtle early warning signs of internal distress, while they are less intense and easier to manage, and the thoughts that accompany them are not yet catastrophic. Also, we have more time in which to choose an appropriate response.

### **“DO NOT MOVE”**

From now on, attempt to practice in complete immobility – “DO NOT MOVE” or “Strong Determination”. This will increase awareness of physical discomfort and allow us an opportunity to decrease our avoidance of it (greater levels of equanimity). This also allows us to establish control over the nervous system by reducing automatic movements (unlearning reactive habits).

## **Week 4 – Part 3 Handout**

### **Introduction to Stage 2**

- So far we have been working on the internal context, during Stage 2 of MiCBT we use the skills we have learned thus far in the external context.
- Hierarchical (or “Graded”) Exposure procedures allow **desensitisation** to a feared or avoided stimulus to take place.
- **Desensitisation** involves the **extinction** of learned responses. Extinction refers to the **natural change** that happens when a learned response is no longer reinforced. Practicing equanimity toward our internal experience (thoughts and body sensations) enables this process to occur internally. We are now moving toward applying equanimity to external situations.
- Stage 2 provides us with **evidence** that we can face what we’ve been avoiding. This evidence directly challenges unhelpful thoughts and beliefs.

### **“Bipolar Exposure”**

- MiCBT involves desensitising from the physical sensations that occur following the stimulus rather than from the stimulus itself. We react not to the \_\_\_\_\_ but to our own \_\_\_\_\_. Responsibility resides within us – **we are in control of the desensitisation process.**



- **Bipolar Exposure:**

1. After mindfulness practice, spend 4-5 minutes visualising the **worst** case scenario for situation 1 – be aware of body sensations that arise but do not react to them (**remain equanimous**).
2. If sensations become too strong while visualising the worst, stop visualising and deal with the sensations (**observe and describe, without reaction and without judgement**) until they decrease in intensity, then return to visualisation of the worst case scenario. Whatever happens, **don't stop** – this will reinforce the learned avoidance response.
3. Rest for 1 minute on the breath.
4. Spend 4-5 minutes visualising the **best** case scenario for situation 1 – be aware of body sensations that arise but do not react to them (**remain equanimous, resist attachment**).
5. After 4 sessions of Bipolar Exposure as described above, tackle the situation in real-life. Real-life exposure can be repeated if possible.
6. Remember, the more regularly we practice Body Scanning the more effective the Bipolar Exposure technique will be.

#### **Week 4 Homework**

- Practice Part-by-Part Body Scanning with/without track 8 of the CD - TWICE DAILY.
- Fill in the "Daily Schedule" form.
- "Informal Practice" – fill in the Interoceptive Signature Form/Interoceptive Signature Pocket Form 5 times during the week.
- Practice equanimity for a few minutes after you wake up (before you do anything else), and for a few minutes before you go to sleep.
- Commitment to physical immobility during formal practice.
- Bipolar and real-life exposure to 2 SUDS targets.

#### **WEEK 5 GROUPS**

**AIM:** Continue with Stage 2 at a more challenging level. Introduce Stage 3, another integration of mindfulness and CBT, which addresses interpersonal dimensions.

**MATERIALS:** Whiteboard markers, CD player and stage 2 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts – Interoception Forms, Daily Schedule Forms, "Experiential Ownership".

#### **WEEK 5 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.

2. Group Practice of Part-by-Part Body Scanning using script/brief instructions (10 mins).
3. Distribute Interoception Forms and fill in. Discuss and collect forms.
4. "MiCBT Week 5" Handout:  
Feedback on past few days – practice and life ("**see life as practice and practice as life**" – write on whiteboard).
5. Review/complete Week 4 topics – especially Week 4 Part 3 (SUDS forms).
6. "MiCBT Week 5" Handout:  
Review Week 4 Homework: Part-by-Part Body Scanning twice daily; Daily Schedule Forms; informal practice; use interoceptive signature forms; pre- and post-sleep awareness; "do not move"; bipolar and real-life exposure to 2 SUDS targets.

### **WEEK 5 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Symmetrical Scanning using track 2 of Stage 2 CD (20 mins).
3. Distribute Interoception Forms and fill in. Discuss and collect forms.
4. Feedback on past few days – begin by asking participants to report back on their experiences with bipolar and real-life exposure, and to re-rate SUDS items following exposure. Review homework given Week 4, Group 3.
5. Explain homework – target exposure to 2 most severe SUDS items for this week's exposure tasks.
6. "MiCBT Week 5" Handout:
  - Introduce Stage 3.
  - Explain "experiential ownership" – taking full responsibility for our thoughts and body sensations and disowning others' (see notes).
  - Discuss hypothesis about others' body states (see notes).
7. Homework:
  - Listen to track 1 of Stage 2 CD ONCE.
  - Practice Symmetrical Scanning using track 2 of CD 2 **or** Part-by-Part Body Scanning with/without CD TWICE DAILY.
  - Fill in Daily Schedule Forms.
  - Informal Practice – fill out Interoceptive Signature forms.
  - Pre- and post-sleep awareness.
  - Bipolar and real-life exposure to the 2 most severe SUDS targets.
  - Practice experiential ownership in 2 stressful interpersonal situations (may be combined with the above exposure).

## **Week 5 Handout**

### **Introduction to Stage 3**

- Stage 3 is an extension of Stage 2 to address interpersonal dimensions.
- Stage 3 involves generalising our understanding of ourselves to others.
- Our understanding that **everything changes** – our experiences as well as those of others – can be applied in social situations in order to improve interpersonal relationships.

### **“Experiential Ownership”**

- Experiential Ownership is taking full responsibility for our own thoughts and body sensations and disowning others’.
- Taking full responsibility for our own experience – understanding that nothing and no-one can possibly create a body sensation within us from the outside (without physically touching us). Remember the 5 Boxes!
- For homework, you are asked to find yourself in a stressful interpersonal situation. First, very rapidly detect and take full responsibility for your own body sensations, no matter what is being presented to you. Then, attempt to disown responsibility for the other person’s experience. Do this with understanding that the other person’s judgemental thoughts create within them unpleasant body sensations to which they react blindly. Consciously decide to reject responsibility for others’ reactivity.
- Experiential Ownership rests upon the practice of equanimity towards thoughts and body sensations (developed during body scanning), and involves...

### **“Hypothesising about Others’ Experience”**

- Making a hypothesis about another’s experience is based on our understanding that others are also prone to react automatically to body sensations, just as we are (however we are often in the position of possessing a greater awareness of this tendency, and a lesser vulnerability to it due to growing equanimity).
- More often than not, when a stressful interpersonal situation has occurred, people react to others’ reactions. (Two lots of 5 Boxes happening at once!)
- While remaining aware of the other person’s suffering (experience of unpleasant body sensations) and equanimous towards our own, our level of arousal is more likely to decrease rapidly than if we feed the cycle of reactivity – the homework task of practicing Experiential Ownership in stressful interpersonal situations gives us opportunity to test this out in real-life.

## **WEEK 6 GROUPS**

**AIM:** Continue with Stage 3 at a more challenging level. Introduce Assertiveness Skills and conduct in-session role-playing as a means of exposure.

**MATERIALS:** Whiteboard markers, CD player and stage 2 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts – Interoception Forms, Daily Schedule Forms, “Assertiveness” handouts, SUDS forms.

### **WEEK 6 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning (15 mins) – use shortened version of part-by-part script or Stage 2 CD (track 2).
3. Distribute Interoception Forms and fill in. Discuss and collect forms.
4. “MiCBT Week 6” Handout:
  - Feedback on past few days.
  - Discuss Assertiveness. Use handout and whiteboard.
5. Review homework (continue with this until next group):
  - Listen to track 1 of Stage 2 CD ONCE.
  - Mindfulness Practice TWICE DAILY – some form of Body Scanning (part-by-part, symmetrical) – and DO NOT MOVE. **Reiterate the central role of equanimity towards body sensations in achieving full desensitisation in order to overcome real-life avoidance and reactivity.**
  - Informal practice – fill in Interoceptive Signature forms (& “5 Boxes”).
  - Pre- and post-sleep awareness.
  - Bipolar (imaginal) and real-life exposure to 2 SUDS items.
  - Practice experiential ownership in 2 stressful interpersonal situations.

### **WEEK 6 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning (15 mins) – introduce Partial Sweeping using Stage 2 CD (track 4).
3. Distribute Interoception Forms and fill in. Discuss and collect forms.
4. Feedback – begin by asking participants to re-rate each item on their SUDS form following exposure. Review homework given Week 5, Group 2 – any “Interoceptive Signature” or “Diary of Reactive Habits” forms to report?
5. Fill in another SUDS form with items related to interpersonal conflict/avoidance of conflict – situations they would avoid or deal with inappropriately. Ask each participant to choose 2 items (those that cause the most impairment) for this week’s exposure tasks – bipolar (imaginal) exposure X4, then real-life exposure (as per last week).

6. Role-play assertiveness with a volunteer (“7 Assertive Statements”) using one of their moderately-rated items.
7. Review “hypothesising about others’ experience”.
8. Homework (“Week 6 Homework” Handout):
  - Listen to track 3 of Stage 2 CD ONCE.
  - Mindfulness Practice TWICE DAILY – some form of Body Scanning (part-by-part, symmetrical, partial sweeping). **Reiterate the central role of equanimity towards body sensations.**
  - Fill in Daily Schedule form.
  - Informal practice and pre- and post-sleep awareness.
  - Bi-polar and real-life exposure to 2 SUDS (interpersonal) items using Assertiveness and Experiential Ownership.

## **MiCBT Week 6**

### **Feedback discussion questions:**

- How many times were you able to practice Body Scanning since last group?  
\_\_\_\_\_
- For how long each time? \_\_\_\_\_
- Did you experience any difficulties?
- What did you notice about your body sensations and associated thoughts?  
\_\_\_\_\_
- Did you notice any benefits of practicing mindfulness?  
\_\_\_\_\_
- Have you achieved TWICE DAILY Practice as an experiment (“test-drive”)?

### **Assertiveness**

1. Make sure you get his/her **full** attention – make a special appointment if necessary.
2. **“State the facts”**. Don’t make assumptions, interpretations, or judgements. Simply describe what actually is.
3. **“State how you feel/felt using ‘I statements’”**. Describe your emotions in a way that shows you are taking responsibility for them. Don’t blame or make assumptions.
4. **“State how you think/thought using ‘I statements’”**. Link this to the statement of your emotions (step 3), taking responsibility for your own

interpretation of the facts. For example: “When (state the facts), I feel (state your emotions), because it meant to me (state your thoughts)”.

5. **“Acknowledge the other person”**. This demonstrates your willingness to take responsibility for your possible misinterpretation of the other’s intentions. For example: “This is what I thought, but I may be wrong about this...”
6. **“State what you want”**. Take responsibility for what you want by stating your request simply and clearly. Link the “want” statement to the problem to be resolved.
7. **“Reward”**. It is beneficial for everybody (in the long-term) if you reward the other person in some way at this stage. Even if they are completely uncooperative, at the very least you can thank them for listening. If they are cooperative, reward them by showing appreciation.
8. **“Find a win-win solution”**. You only need to use this step if the other person refuses to cooperate. Rather than giving up and **reacting**, attempt to negotiate a compromise.

### **WEEK 7 GROUPS**

**AIM:** Introduce Stage 4 via a review of Stages 1, 2, and 3.

**MATERIALS:** Whiteboard markers, CD player and stage 2 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts – Interoception Forms, Daily Schedule Forms, “Assertiveness” handouts, SUDS forms.

### **WEEK 7 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning (10 mins) (part-by-part using shortened version of script; or track 2 or 4 of CD 2).
3. Feedback on past few days (use Home Practice Feedback form).
4. Conduct Role Play from Week 6 (Assertiveness) if not already done.
5. Group practice of Sweeping-en-masse (15 mins) using track 6 of Stage 2 CD. Mention first that this method can be very satisfying and becoming attached to the sensations will bring disappointment because they also are impermanent – the objective is equanimity.
6. Describe the advantages of *living mindfully* rather than limiting ourselves to *practicing mindfulness*. Living mindfully involves generalising mindfulness skills by attending mindfully to other events and experiences: Looking at the face of someone we know well, hearing a favourite piece of music, tasting a familiar food – **nonjudgementally, as if for the first time**.

7. Homework – continue that given Week 6 Group 2. Emphasise SUDS forms – exposure to target events.

### **WEEK 7 GROUP 2 SESSION OUTLINE**

➤ **Allow 90 minutes for this group.**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning (5 mins) using brief instructions.
3. Describe Transversal Scanning (in terms of neuroplasticity, extinction of learned responses, and reprocessing of “old stock”) – this is a very advanced level and a further step towards neuroplasticity. Refer to the “5 Boxes” – the co-emergence effect allows schema-based associations to be uprooted and reprocessed equanimously, leading to the extinction of the learned response. Due to deeper interoceptive awareness that takes place during transversal scanning, older memories encoded with their associated body sensations can co-emerge and pass away unhindered by a clinging or aversive mind.
4. Group Practice/Observation of Transversal Scanning using track 8 of CD 2.
5. Feedback on past few days (use Home Practice Feedback Form).
6. Review homework given Wk 6 Gr 2. Re-rate SUDS items following exposure.
7. Introduce Stage 4 (use Handout). EMPATHY  
= DECREASED REACTIVITY = RELAPSE PREVENTION.
8. Group Practice of Body Scanning or Mindfulness of Breath (5 mins).
9. Group Practice of Loving-Kindness Meditation using track 10 of CD 2.
10. Homework:
  - Mindfulness Practice TWICE DAILY (some form of Body Scanning with/without CD).
  - Follow Mindfulness Practice with 5-10 mins of Loving-Kindness Meditation using track 10 of CD 2, then using own thoughts and formulations. **Do not practice while in a negative, reactive state.**
  - Informal practice – “living mindfully”, “generalised mindfulness”.
  - Pre- and post-sleep awareness.
  - Bipolar and real-life exposure to remaining SUDS items.

### **Week 7 Handout**

#### **Introduction to Stage 4**

- We have been learning, in stages 1 & 2, to centre on ourselves with more objectivity and responsibility. And in stage 3 we have been learning to de-centre and look outward at others’ suffering and responsibility.

- Our attention has been shaped to attend to both internal and external experience with greater understanding and acceptance of ourselves and others.
- Stage 4 further shapes attention towards empathy for others using our own positive body sensations (and co-emerging positive thoughts) as an anchor, a grounding.

### **“Loving-Kindness Meditation”**

- After each sitting meditation, continue for about 5 minutes of empathic training making use of pleasant body sensations (usually in the “heart” area) as a grounding for positive thoughts towards ourselves and others.
- As more positive thoughts are generated, body sensations in turn will become more and more positive – creating overall a very uplifting experience.
- Practicing Loving-Kindness Meditation often facilitate progress in the area of forgiveness, as persons we may have perceived as aversive are paired with positive and pleasant body sensations (“counter-conditioning”).

### **WEEK 8 GROUPS**

**AIM:** Introduce Stage 4.

**MATERIALS:** Whiteboard markers, CD player and stage 2 CD, attendance sheet, pens and paper for clients, session outline and notes, handouts – Interoception Forms, Daily Schedule Forms, “Assertiveness” handouts, SUDS forms.

### **WEEK 8 GROUP 1 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning in silence (no instructions) (10 mins).
3. Group Practice of Loving-Kindness Meditation in silence/using track 10 of Stage 2 CD (5-8 mins).
4. Feedback on past few days – practice and life. Validate better coping styles and discuss “the yardstick for progress”.
5. “MiCBT Week 8” Handout: Relapse Prevention Guidelines.
6. Homework – continue that given Week 7 Group 2, plus write some personalised positive statements toward self for Loving-Kindness Meditation (see “MiCBT Week 8” Handout).

### **WEEK 8 GROUP 2 SESSION OUTLINE**

1. Fill out attendance sheet.
2. Group Practice of Body Scanning (and Mindfulness of Breath).
3. Feedback on past few days – practice and life. Validate better coping styles and discuss “the yardstick for progress”.



4. Review homework given Week 7 Group 2 and Week 8 Group 1.
5. Program revision – summarise important points from each stage of MiCBT (use whiteboard). Clarify questions.
6. Assess goal achievement (use whiteboard) (see p. 127 of Handbook).
7. Encourage continuation of Mindfulness Practice, formal and informal (“You have the tools...”). Move on to more advanced methods in own time if not already attained (especially Loving-Kindness Meditation). Give “Ongoing Homework” handout.
8. What will happen now – in terms of Missiondale program (groups), 1:1 counselling, questionnaires for research project.

## **Week 8 Handout**

### **“Relapse Prevention”**

- When learning and using mindfulness skills has been part of positive changes in our life, then **relapse** can be thought of as **“a return to mindlessness”** – **reverting to old reactive habits** in the face of a very challenging experience.
- Relapse is a transient (impermanent) experience just like any other experience; an experience that may be observed, accepted without judgement, and let go.
- The resurfacing of old habits may be seen as an opportunity to further desensitise from them by applying mindfulness skills – thoughts are perceived merely as thoughts that arise and pass away, and body sensations are perceived merely as body sensations with the least possible evaluation.
- Remain in the present moment. Be aware of the newness of each moment – even experiences that seem old and familiar are actually new and different.
- Attempt to go beyond traditional and habitual ways of thinking about and labelling “relapse”. Treat experiences along this continuum as opportunities for renewed focused attention.
- Be aware of the non-linear nature of growth and change. Remember that facing real-life stressful situations with equanimity is the best relapse-prevention strategy!

### **“Loving-Kindness Meditation”:**

This week, write some personalised positive statements towards yourself & others.

## Appendix K

### TAU Materials

#### **SELF-AWARENESS SESSION 1**

##### Quotes

“Without awareness, we are not truly alive.” – James F.T. Bugental.

“When you are looking in the mirror, you are looking at the problem. But, remember, you are also looking at the solution.” – Anonymous.

“Fear comes from uncertainty; we can eliminate the fear within us when we know ourselves better.” – Bruce Lee.

FEAR & ANXIETY are natural human responses to a perceived threat.  
I can feel threatened by things that I can’t control, by the uncertainty of what might happen, by the UNKNOWN...

##### UNDERSTANDING FEAR & ANXIETY:

I am walking across a road and I see a car speeding toward me... I will perceive a threat, and as a result my body will react with the “flight or fight response” – I will focus my eyes on the distance between the car and me, and how far I have to go to get to the safe side of the road; my heart will beat faster and my breathing rate will increase; my muscles will tense in preparation for action; and I will hurry across the road.

In this situation, I experienced fear in response to a real and immediate threat to my physical safety. All of the changes I experienced in my body energised me in order to successfully escape the threat and reach safety. In this situation, the flight or fight response was helpful and healthy.

At other times, the flight or fight response is not so helpful, because it occurs not just in response to real physical threats, but also in response to anything that my brain perceives as a threat. For example, someone might see the act of going out at all as threatening because they might get hit by a car or attacked by a dog or laughed at by someone. In this case, I would call those body sensations associated with the flight or fight response “anxiety”; and rather than being helpful it would be unpleasant, confusing, and paralyzing.

In fear I know what threatens me, I am energised by the situation, my perceptions are sharper, and I take steps to run or other appropriate ways to overcome the danger... In anxiety, however, I feel threatened without knowing what threatens me or what steps to take.

My anxiety comes from worry and fear about the UNKNOWN. The unknown may be internal as well as external, so that I become anxious because I am not sure:

1. About what I believe...
2. About my own worth...
3. About who I am and who I ought to be.

If a major source of anxiety is the fear of the UNKNOWN within me, it makes sense that reducing anxiety would involve increasing my knowledge of myself. Therefore, the point of

self-awareness is to help guard against anxiety and increase my sense of empowerment. The task then is to strengthen my consciousness of myself, to find the areas of strength within myself which will allow me to stand in spite of the confusion and bewilderment around me...

**ANXIETY IS ABOUT THE UNKNOWN.**

**THERE IS ONE THING THAT I CAN KNOW FOR SURE – MYSELF**

Homework

The "Sentence Completion" exercise is an opportunity to increase my self-awareness and begin learning about myself. At the beginning of the next group everyone will be asked to share some of what they have written with the group.

Please complete the following sentences honestly. Try not to spend too long thinking about the answers!

- 1 Right now I am feeling ...
- 2 I am happiest when ...
- 3 When I am rejected I usually ...
- 4 The emotion I find most difficult to control ...
- 5 I am most afraid of ...
- 6 To me belonging is ...

### **SELF-AWARENESS SESSION 2**

As I learn to live life sober, I may well catch myself asking: 'What do I do now?' Days once spent in oblivion are days that now need to be filled with fresh experiences, fresh ideas, and personal growth.

Above all, now that I am sober, I will need to get reacquainted with the 'new me' - the person who has been hiding all those years under the cover of a false alcohol and drug induced state.

Knowing myself is one of the greatest challenges that I, as a recovering addict, am likely to face.

Who is the real 'me', the real 'me' that for years I have hidden from others and most of all, from myself?

In short, how is it now that I am sober I become:

"AWARE OF MYSELF?"

The way I learned who I am has been through the reflections of others. My parents, my friends, maybe even my dealers. What I think, believe and feel, has perhaps been cast too often into the haze of my drug induced state, and now that I am taking a stand, I find myself finally responding to a deeper understanding of

"Who I am and who I ought to be"

Yet as I strive to come to terms with and live by sobriety, a challenge too often surfaces:

"EMPTINESS"

In other words I don't know what I want, and often don't have any clear idea of how I feel. I am swayed this way and that, and end up feeling empty, like living in a vacuum, somewhere in the middle of nowhere.

There is this terrible feeling of emptiness that comes from feeling powerless to do anything about my life or the world I live in, or the habits I have acquired.

And the great danger of this emptiness and feeling of powerlessness is that it leads sooner or later to anxiety and despair, and if it's not put right, it will lead to the blocking off of the most precious qualities of the human being...stunt my growth... impoverish my whole life...

‘Who am I?’. Ultimately perhaps, only I can answer that question. Yet sometimes what I think and what others tell me comes as a surprise. I should never discount the thoughts of others, even if the choice to agree or not comes down to me. I want to come to understand ‘who I am’ – and sharing openly with others is a great place to start. I will come to know them better as well.

#### Question

List 5 assets and 5 liabilities, i.e. 5 positive and 5 negative aspects of myself. These will be shared with the rest of the group.

#### ASSETS (positive aspects)

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

#### LIABILITIES (negative aspects)

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

#### GENUINE HONEST FEEDBACK - TO HELP EACH OTHER:

- 1 Would I have said this about them?
- 2 How do I see them?
- 3 Do I feel they are being realistic?
- 4 Are they being too hard on themselves?
- 5 Are they being too easy on themselves?
- 6 Is this a balanced view?
- 7 Am I being objective?

#### GROWTH DISCOVERIES:

- 1 What have I really found out about myself?
- 2 What implications in regard to my future does this information hold?
- 3 What possible changes can I make in my behaviour?
- 4 What have I discovered about myself that I can change?

#### “SELF-AWARENESS”

Self-awareness is important in leading on to self-esteem. What I have done today with the STOCKTAKING exercise is to become aware of some of the strengths and weaknesses I have.

The strengths can be built on, the weaknesses can be worked on, so that my self-esteem can be good.

Self-Awareness is becoming aware of myself:

1. How and what I think.
2. How I feel.
3. How I act.

I have the ability to change those areas that I find unsatisfactory.

Maybe I want or need to discard some things. Maybe I want to take on some new things - learn new skills etc.

BUT FIRST: No changes can be made until I become aware of what is!

Maybe looking back over my life I could see and say I've been repeating the same mistakes over and over again, simply going nowhere and now I want to get off the merry-go-round.

#### Quote

“What looks like the end, may well be the beginning”

Story

“SELF-ESTEEM”

I am me.

In all the world, there is no one else exactly like me. There are persons who have some parts like me, but no one adds up exactly like me. Therefore, everything that comes out of me is authentically mine because I alone chose it.

I own everything about me - my body, including everything it does; my mind, including all its thoughts and ideas; my eyes, including the images of all they behold; my feelings, whatever they may be - anger, joy, frustration, love, disappointment, excitement; my mouth, and all the words that come out of it, polite, sweet or rough, correct or incorrect; my voice, loud or soft; and all my actions, whether they be to others or to myself.

I own my fantasies, my hopes, my dreams, my fears,

I own all my triumphs and successes, all my failures and mistakes.

Because I own all of me, I can become intimately acquainted with me. By so doing I can love me and be friendly with me in all my parts, I can then make it possible for all of me to work in my best interests.

I know there are aspects about myself that puzzle me, and other aspects that I do not know. But as long as I am friendly and loving to myself, I can courageously and hopefully look for the solutions to the puzzles and for ways to find out more about me.

However I look and sound, whatever I say and do, and whatever I think and feel at a given moment in time is me. This is authentic and represents where I am at that moment in time. When I review later how I looked and sounded, what I said and did, and how I thought and felt, some parts may turn out to be unfitting, I can discard that which is unfitting, and keep that which proved fitting, and invent something new for that which I discarded.

I can see, hear, feel, think, say and do. I have the tools to survive, to be close to others, to be productive and to make sense and order out of the world of people and things outside of me.

I own me, and therefore I can engineer me.

I am me and I am okay.

Virginia Satir "People making"

Homework

- 1 What stands out in the above passage for me and why?
- 2 What does this say about taking responsibility for who I am?

### **SELF-AWARENESS SESSION 3**

In the Stocktake session it talks about the need to become aware of myself, of what I am and who I ought to be.

This terrible feeling of emptiness that comes from feeling powerless to do anything effective about my life or the world I live in...and one of the great dangers of this emptiness and powerlessness is that it leads sooner or later to anxiety and despair and all the negative things that go along with that.

But when I look at the Stocktake session I discover that I have some assets and liabilities.. I became AWARE that there were good things and positive things about myself that I could use to build a better life...

And I also learn that perhaps there were some negative things that were not so good...but because I became aware of them I can begin to do something about them. Becoming aware of myself is a positive activity, and today we want to take that a step further and talk about:

"HOW I AM NOW AND HOW I WANT TO BE"

I CAN CALL A TAXI AND TELL THE TAXI COMPANY WHERE I WANT TO GO, but if I can't tell them where to pick me up (where I am now), then I'm not going to go anywhere!  
Why?

So the exercise is important, particularly in the matter of self-determination. The questions: "Where do I want to go?", "How do I want to be?" can only be determined if I know exactly where I am now.

I looked at how I felt about myself and how others feel about me. Turning to others to find out more about myself is at least only half of the answer, and probably less than that. No one can ever get to know me as well as I can know myself.

There is only one place for me to look:

1. Inside!
2. Into the person I had rejected.
3. Into the self that I had avoided.

Inside my skin is a person, a person who:

1. Was created in God's Image.
2. Is a person of value.
3. Is a person with a destiny.

Questions

- 1       Where am I now?
- 2       Where do I want to go?
- 3       Who do I believe I am meant to be?
- 4       What is my purpose?
- 5       How has my previous life been keeping me from this calling?

If I can determine questions like these, then I can at last begin to work on HOW to get where I want to be!

Homework

Working out where I am isn't always easy, especially when I'm not accustomed to it, and that's the purpose of the exercise I'm going to do now. It's not a kindergarten exercise, children aren't asked to do this sort of thing –it's too hard for kids, and it's not exactly easy for adults...

On the left side of the piece of paper, draw how I am now – how I am feeling and what my present life situation is. Then on the right side draw how I wish to be in the future. Draw diagrams and symbols to explain my situation. Do not try to be artistic or draw a self-portrait.

## **SELF-AWARENESS SESSION 4**

"WHERE AM I GOING?"

"WHY AM I HERE?"

"WHAT IS MY REAL PURPOSE AS A HUMAN BEING?"

"WHO AM I REALLY?"

"WHO AM I?" Most of us would say I know who I am..I know who my parents are...I know how old I am...I know where I live...and in that respect it's probably a foolish question – Of course I know who I am!

But as time goes by I realise there's more to the question than just that surface kind of information (name, rank and serial number).

I begin to realise that I have been constructed in a much more complicated and difficult fashion than I ever imagined...that there are mysterious forces within me that begin to pull me this way and that way like a tug of war. So much so that I often act against my better judgment and my niggling conscience, and as time goes by it becomes increasingly troublesome to find an adequate answer to the question: "WHO AM I?"

I am not just a name. I am an individual. I am unique, different. I can think my own thoughts and feel my own feelings. I can act on my own behalf. I have a free will of my own and I can do what I want, up to a point, or I can refrain from doing what I believe I should not do. I can be moved by strong emotions, such as fear, wonder, love, hate, sorrow, shame.

And on top of all that I have an inbuilt sense of:  
"OUGHTNESS"

In the ordinary, everyday business of living I know what I ought to do - and what I ought not to do...

This is a moral quality, a spiritual awareness of right and wrong. Sometimes it is warped, sometimes sadly twisted...but always the instinct of right and wrong is there – as much a part of my being human as my capacity for thought, feeling, willing and acting.

Which means, of course, that if I am ever going to find an answer to the question of who I am then I must accept...

RESPONSIBILITY for who I am.

I am a responsible person.

I am responsible to God...to my neighbours...to those with whom I live.

"I AM RESPONSIBLE TO MYSELF"

Story

"The Man in the Glass"

When you get what you want in your struggle for self  
And the world makes you king for a day,  
Just go to a mirror and look at yourself,  
And see what that man has to say.

For it isn't your father or mother or wife  
Who judgment upon you must pass;  
The fellow whose verdict counts most in your life  
Is the one staring back from the glass.

Some people may think you a straight-shootin' chum  
And call you a wonderful guy,  
But the man in the glass says you're only a bum  
If you can't look him straight in the eye.

He's the fellow to please, never mind all the rest  
For he's with you clear up to the end,  
And you've passed your most dangerous, difficult test  
If the man in the glass is your friend.

You may fool the whole world down the pathway of years  
And get pats on the back as you pass,  
But your final reward will be heartaches and tears  
If you've cheated the man in the glass.

Distributed by the Hazelden Foundation for the chemically dependent.

I have to live with myself, with my conscience...I can never shake that off!

No doubt I have been guilty from time to time of running away from or neglecting my personal responsibilities. When that happens, instead of admitting my failures, as a rule I make excuses. I begin to put the blame on circumstances, or on other people, instead of on myself.

Share an example and discuss.

Verse

There's an old biblical verse which runs like this: "Be sure your sins will find you out!" which could be like this verse by Rudyard Kipling:

"I had a kettle I let it leak  
My not mending it made it worse,  
I haven't had any tea for a week,  
The bottom is out of the universe."

It is important that I have a foundation to build on from where my thinking comes from.  
"I am what I think about".  
How do I see myself?

Questions

Look carefully through the attached Adjective Check List.

- A Circle six adjectives that describe how you see yourself at this point in time.
- B Tick six adjectives that describe how you would like to be.

Share with the group the adjectives that you have circled and ask for their perception of you.

- C Do you believe what they have said is true or accurate?



## "ADJECTIVE CHECKLIST"

|               |                |                 |               |
|---------------|----------------|-----------------|---------------|
| Able          | Dutiful        | Irritable       | Passive       |
| Accepting     | Effervescent   | Jealous         | Paternal      |
| Adaptable     | Efficient      | Jovial          | Patient       |
| Aggressive    | Elusive        | Juvenile        | Perceptive    |
| Ambitious     | Energetic      | Kind            | Perfectionist |
| Annoying      | Extroverted    | Knowledgeable   | Persuasive    |
| Anxious       | Fair           | Lazy            | Petty         |
| Authoritative | Fearful        | Learned         | Playful       |
| Belligerent   | Foolish        | Lewd            | Pleasant      |
| Bitter        | Frank          | Liberal         | Pompous       |
| Bold          | Free           | Lively          | Powerful      |
| Brave         | Friendly       | Logical         | Pragmatic     |
| Calm          | Genial         | Loving          | Precise       |
| Carefree      | Gentle         | Malicious       | Pretending    |
| Careless      | Giving         | Manipulative    | Pretentious   |
| Caring        | Greedy         | Materialistic   | Principled    |
| Certain       | Gruff          | Maternal        | Progressive   |
| Cheerful      | Guilty         | Mature          | Protective    |
| Clever        | Gullible       | Merry           | Proud         |
| Cold          | Happy          | Modest          | Quarrelsome   |
| Complex       | Hard           | Mystical        | Questioning   |
| Confident     | Helpful        | Naïve           | Quiet         |
| Conforming    | Helpless       | Narcissistic    | Radical       |
| Controlled    | Honourable     | Negative        | Rational      |
| Courageous    | Hostile        | Nervous         | Rationalising |
| Cranky        | Idealistic     | Neurotic        | Reactionary   |
| Critical      | Imaginative    | Noisy           | Realistic     |
| Cynical       | Immature       | Normal          | Reasonable    |
| Demanding     | Impressionable | Oblivious       | Reassuring    |
| Dependable    | Inconsiderate  | Objective       | Rebellious    |
| Dependent     | Independent    | Observant       | Reflective    |
| Derogatory    | Ingenious      | Obsessive       | Regretful     |
| Determined    | Innovative     | Organised       | Rejecting     |
| Dignified     | Insensitive    | Original        | Relaxed       |
| Disciplined   | Insincere      | Overburdened    | Reliable      |
| Docile        | Intelligent    | Overconfident   | Religious     |
| Dogged        | Introverted    | Over conforming | Remote        |
| Domineering   | Intuitive      | Overemotional   | Resentful     |
| Dreamy        | Irresponsible  | Overprotecting  | Reserved      |
| Resolute      | Self-righteous | Sympathetic     | Unpredictable |
| Respectful    | Sensible       | Taciturn        | Unreasonable  |
| Responsible   | Sensitive      | Tactful         | Unstructured  |
| Responsive    | Sentimental    | Temperamental   | Useful        |
| Retentive     | Serious        | Tenacious       | Vain          |
| Rigid         | Shy            | Tender          | Vapid         |
| Sarcastic     | Silly          | Tense           | Visionary     |
| Satisfied     | Simple         | Thoughtful      | Vulnerable    |
| Scientific    | Sinful         | Tough           | Warm          |

|                  |             |               |           |
|------------------|-------------|---------------|-----------|
| Searching        | Skillful    | Trusting      | Willful   |
| Self-accepting   | Sly         | Trustworthy   | Wise      |
| Self-actualising | Sociable    | Unassuming    | Wishful   |
| Self-assertive   | Spontaneous | Unaware       | Withdrawn |
| Self-aware       | Stable      | Uncertain     | Witty     |
| Self-conscious   | Strained    | Unconcerned   | Worried   |
| Self-effacing    | Strong      | Uncontrolled  | Youthful  |
| Self-indulgent   | Stubborn    | Understanding | Zestful   |
| Selfish          |             |               |           |

#### Homework

Write out what I need to put in place from my 'A' list to enable my 'B' list to happen.

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### **SELF-AWARENESS SESSION 5**

#### Principles

1. Be myself. Don't wear a mask or play a role.
2. Experience fully, and express fully and freely, my true emotions.
3. Do not let fear of hurting another's feeling prevent me from doing or saying what i think i should.
4. Assert myself. I have the right to be respected, think my own thoughts, and make choices. Insist on this right.
5. Do not bend myself out of shape trying to please everyone all the time.
6. Do not attempt to make myself look better by attacking, citing down or gossiping about others.
7. Look for what is good in others. Enjoy and praise others
8. Think of myself in positive terms. Become aware of all that is good in me.
9. Be gentle and understanding with myself as i would like to be with others.
10. Forgive whenever necessary. Bearing a grudge is self-destructive.

Self-awareness – knowing myself...becoming acquainted with myself so that I can feel good about myself, so that the ME that I am is the ME that I can be friends with and feel comfortable with...the ME that I am prepared to do something about and improve and enjoy.

The "STOCKTAKE" session explains that there are good things and not so good things about myself, and that I need to recognise and accept these things before any changes can be made.

There are also positive and negative things, and refusing to see and accept the negative keeps me on the defensive and therefore my energy is being diverted in the wrong direction – towards the negative instead of towards change.

#### Quote

"As a person thinks in their heart, so they are!"

This is one of the most important and far-reaching truths ever to be discovered in relation to human behaviour – "I am what I think about."

I am literally WHAT I THINK!

My character is the sum total of all my thoughts...

What I think can affect my circumstances, my health, my achievements, my purposes, my peace of mind, my success or failure – whether or not I am a winner or loser.

Therefore what I think is important and what is more important is having a foundation on which to build my thinking.

### Questions

1. In what circumstances do I find it most difficult to be honest and open about what I think and feel?

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2. What things might I believe that makes it harder?

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3. (a) What emotions am I most comfortable with?

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(b) Which emotions do I feel least free to express?

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4. What do I believe that may prevent me from expressing myself more fully?

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5. Are there special persons, or types of persons, or special situations in which a fear of hurting another's feeling is crippling or painful to me?

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6. What beliefs might I hold that may make it harder?

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7. When and with whom do I find it hardest to be assertive?

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8. What beliefs are holding me back?

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9. Do I feel compelled to please all people (or certain people) all the time?

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10. If so, what beliefs make me feel this way?

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11. Do I feel threatened by the success of others?

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12. What do I believe that makes it so?

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13. Do I tend to be more aware of others irritating and obnoxious qualities as opposed to their pleasing qualities?

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14. If so, what beliefs might I hold about people?

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15. Am I uncomfortable in describing my achievements or things I like about myself?

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16. What are my beliefs about this?

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17. What weakness in myself most exasperates me?

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18. What do I believe about this weakness, that makes me feel this way?

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19. (a) Is there someone I cannot forgive?

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(b) What beliefs make it harder?

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20. (a) Is there something that people do which I cannot forgive?

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(b) What does this say about my beliefs?

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#### Conclusion

- 1 What are the principles and/or beliefs that I live by?
- 2 Have I found out anything new about myself?
- 3 Has this made things clearer?

### **SELF-AWARENESS SESSION 6**

The best and most effective way for ME to develop my full potential and build my self-worth is to concentrate on my strengths and not my weaknesses.

Current research findings support the strategy of building on strengths, and suggest that a focus on weaknesses is a counter-productive use of time and energy. One of the very sad things about alcohol/drug addiction is that in the end it destroys those feelings of self-worth and leads me to focus on my weaknesses than my strengths.

In fact, even without the problems of addiction, I have a very limited awareness of my strengths and resources but have a much clearer idea of my weaknesses and problem areas...

The exercises that I've been doing such as "STOCKTAKE", "HOW I AM NOW AND HOW I WANT TO BE", and "ADJECTIVE CHECK LIST" have been aimed at bringing back a more balanced focus. When I described myself I discovered some of my strengths, and I learned that some of the things I would like to be could be achieved by concentrating on these strengths.

TRUE?

Strengths and virtues are useful tools that help me cope with stress and challenges. But they are more than that. My strengths help me to grow into the best person I can be, and enable me to act in a way that benefits both myself and the community I live in. My strengths make my life, and the lives of those around me, better. Using my strengths and virtues helps me to experience my "true self", and leads to positive outcomes in my life.

Strengths and virtues have the following qualities:

- They contribute to fulfillment.
- They have value to society as a whole.

- They are celebrated when present and mourned if lost.
- They are learnable and can be developed.
- They are good for everyone and bring no harm to others.
- They increase as they are used.
- They can "open doors" and help to turn hard situations into opportunities.
- They help us to find meaning in our lives.

Taking all this into account, becoming more aware of my strengths and good qualities has to be a good thing! In fact, research has shown that the process taking inventory of my strengths helps my self-confidence, improves my self-image and self-esteem and generally makes me a stronger person.

#### Questions

Name some of my strengths and good qualities, and/or name some strengths of others in the group... Make some notes on the page below (especially take note of the strengths that others see in me!)

- 1 How have these strengths helped me and others?
- 2 How have these strengths made the Missiondale community better?
- 3 How do I feel in myself when I am exercising my strengths?
- 4 How do I feel about myself when I am exercising my strengths?

#### Fable

##### "THE ANIMAL SCHOOL"

Once upon a time, the animals decided they must do something heroic to meet the problems of a "new world." So they organised a school.

They adopted an activity curriculum consisting of running, climbing, swimming, and flying.

To make it easier to administer the curriculum all the animals took all the subjects,

The duck was excellent in swimming, in fact better than his instructor; but he made only passing grades in flying and was very poor in running. Since he was slow in running, he had to stay after school and also drop swimming in order to practice running. This was kept up until his webbed feet were badly worn and he was only average in swimming. BUT AVERAGE WAS ACCEPTABLE IN SCHOOL SO NOBODY WORRIED ABOUT THAT EXCEPT THE DUCK.

The rabbit started at the top of the class in running, but had a nervous breakdown because of so much make-up work in swimming.

The squirrel was excellent in climbing until he developed frustration in the flying class where his teacher made him start from the ground up instead of from the tree top down. He also developed muscle cramps from over-exertion and then got C in climbing and D in running.

The eagle was a problem child and was disciplined severely. In the climbing class he beat all the others to the top of the tree, but insisted in using his own way to get there. At the end of the year, an abnormal eel that could swim exceedingly well, and also run, climb, and fly a little, had the highest average and became the dux of the school.

The prairie dogs stayed out of school and fought the tax levy because the administration would not add digging and burrowing to the curriculum. They apprenticed their children to a badger and later joined the groundhogs and gophers to start a successful private school.

#### Questions

- 1 Does this fable have a moral?
- 2 What is it really talking about?

## Homework

### HOW TO WRITE MY FABLE

#### Planning my Fable:

1. Choose a moral. What is it that I want to say? What is the lesson that I want to teach? What is the point that I want to make? I can use a well-known saying (such as "pride comes before a fall"), or make up my own moral.
2. Invent characters. My characters can be animals, people, objects, or anything I like. Think about what my characters will be like and how they will act. What roles will they play in the story?
3. Find a setting. The setting can be a real place or an imaginary one. Morals teach lessons that are true no matter what the setting!
4. Create a plot. Writing a fable is telling a story with a point to it! What will happen to the characters? Will there be a climax or a punch-line in my story? What will be the build-up? How will the character(s) learn their lesson?

#### Writing my Fable:

1. Introduce the characters and the setting by describing them so that the reader can imagine them.
2. The main plot – this is where I tell my story.
3. The ending – this is where my characters learn their lesson. The fable should end with the moral.
4. After I've written my fable, put it aside for a while. Then check it over to make sure that it makes sense and the spelling is OK. At this stage I might want to make some changes and write up a final draft.

CONCENTRATE ON THE STRENGTHS!

### **SELF-AWARENESS SESSION 7**

I am becoming more aware of myself...of the fact that as a human being I'm worth something...I'm valuable. And I've tried to discover through a series of exercises just what sort of person I am. I've tried to recognise my strengths and weaknesses, assets and liabilities. I have attempted to build up my own self-worth by becoming aware of those things that I have a right to feel good about.

Unfortunately what happens very often is that whilst I may be becoming aware of myself and building up heaps of self-worth feelings, I may not doing very much for other people, and other people may not be doing very much for me...

So today's topic is: THE GIFT OF HAPPINESS

Story

"LOVE AND THE CABBIE." by Art Buchwald

I was in New York the other day and rode with a friend in a taxi. When we got out my friend said to the driver, "Thank you for the ride. You did a superb job of driving."

The taxi driver was stunned for a second. Then he said: "Are you a wise-guy or something?"

"No, my dear man, and I'm not putting you on. I admire the way you keep cool in heavy traffic."

"Yeah," the driver said and drove off.

"What was that all about?" I asked.

"I am trying to bring love back to New York," he said. "I believe it's the only thing that can save the city."

"How can one man save New York?"

"It's not one man. I believe I have made the taxi driver's day. Suppose he has 20 fares. He's going to be nice to those twenty fares because someone was nice to him. Those fares in turn will be kinder to their employees or shop-keepers or waiters or even their own families. Eventually the goodwill could spread to at least 1,000 people. Now that isn't bad, is it?"

"But you're depending on that taxi driver to pass your goodwill to others."

"I'm not depending on it," my friend said. "I'm aware that the system isn't foolproof so I might deal with 10 different people today. If, out of 10, I can make three happy, then eventually I can indirectly influence the attitudes of 3,000 more."

"It sounds good on paper," I admitted, "but I'm not sure it works in practice."

"Nothing is lost if it doesn't. I didn't take any of my time to tell that man he was doing a good job. He neither received a larger tip nor a smaller tip. If it fell on deaf ears, so what? Tomorrow there will be another taxi driver whom I can try to make happy."

"You're some kind of a nut." I said.

"That shows you how cynical you have become. I have made a study of this. The thing that seems to be lacking, besides money of course, for our postal employees, is that no one tells people who work for the post office what a good job they're doing."

"But they're not doing a good job."

"They're not doing a good job because they feel no one cares if they do or not. Why shouldn't someone say a kind word to them?"

We were walking past a structure in the process of being built and passed five workmen eating their lunch. My friend stopped, "That's a magnificent job you men have done. It must be difficult and dangerous work."

The five men eyed my friend suspiciously. "When will it be finished?"

"June," a man grunted.

"Ah. That really is impressive you must all be very proud."

We walked away. I said to him "I haven't seen anyone like you since 'Pay it Forward.'"

"When those men digest my words they will feel better for it. Somehow the city will benefit from their happiness."

"But you can't do this all alone!" I protested. "You're just one man."

"The most important thing is not to get discouraged. Making people in the city become kind again is not an easy job, but if I can enlist other people in my campaign..."

"You just winked at a very plain looking woman," I said.

"Yes, I know," he replied. "And if she's a schoolteacher, her class will be in for a fantastic day."

## Questions

- 1 What do you make of this story?
- 2 Have you watched the movie "Pay it Forward"?
- 3 Do you see any parallels with the story just read?

It's just like dropping a pebble in a pool and seeing the ripples go out to the edge, I may not always see that, but at least I can try...

The gift of happiness looks first of all at the way my self-image and feelings of self-worth can be destroyed by others – and how I can destroy those same feelings in others.

Imagine that I am wearing this sign around my neck. In fact, everyone carries an invisible IALAC sign around with them at all times and wherever they go...

"IALAC" - "I AM LOVABLE AND CAPABLE"

This is my self-concept or at least it ought to be by now! This is how I feel about myself...

The size of my sign – or how I feel about myself – is often affected by how other people interact with me.



If somebody is nasty to me, teases me, puts me down, rejects me – then a piece of my IALAC sign is destroyed...

### Story

I woke up this morning and it is really pitching down outside. I go out to the kitchen and there is no bread left for my toast, my house mate has a go at me as it is my turn about for the shopping, and I haven't done it. I apologise and say I will get the shopping done this morning. Its then I realise I forgot to put my dole form in yesterday, no money for today. I head to the shower and the hot water runs out after a few moments, I end up rinsing out the shampoo under cold water.

I locate my dole form and set off to town, it's still raining and the wind is cold. I have to walk to Centrelink in this miserable weather. I arrive at Centrelink and wait in this ridiculous queue that seems to be going nowhere. I finally get to hand over my form and as I do I ask the women behind the counter if there is any chance of an emergency payment. She just nods at me and says take a seat and someone will come and get me.

Twenty minutes later the customer officer I had a go at when I was last in here comes up and directs me to his station. I think last time here I just said he was as useful as a pocket in my underpants, oh well, he won't remember.

I gave him a sob story to inspire him to rally to my urgent cause, to be greeted with a firm refusal. He also asked if I had found a use for that pocket I told him about two weeks ago..... Damn.

So I trudge back home, (penniless) getting splashed by motorist who just love emptying puddles onto unsuspecting pedestrians. Being chased by a dog that looked heaps hungrier than I am. That's right I haven't had breakfast or lunch.

My house mate arrives home at 5 and sees I haven't kept up my end of the bargain, and proceeds to remind me of all my faults and failings, some of them I hadn't even been aware of.

So tea was a shared can of SPC beans and a couple of wheet-bix, and several scalding cups of reminders about how slack I've been lately.

Tomorrow has got to be better. It has to be!

### Questions

- 1 How does my IALAC sign get destroyed?
- 2 What things affect me the most?
- 3 What do I do that destroys the IALAC signs of others?
- 4 How do I feel when my IALAC sign is destroyed?
- 5 How do I feel when I destroy someone else's?
- 6 What can I do to help people enlarge their signs rather than make them smaller?

So now we come to the name that is given to this session: "The Gift of Happiness" ...and the possibility that I can help other people have a better appreciation of themselves because of the things I say or do...

It is often possible to enjoy a small gift more than a large one. Yet, I sometimes become so concerned about not being able to do great things for each other, that I neglect doing the little things that can also be meaningful.

### Homework

Write a small "gift of happiness" (message) to each person in the group, to be presented at the next group session. The messages are intended to make them feel positive about themselves.

All too often in addiction, the focus is often firmly centered on myself, and about having my needs met. Here is a fantastic opportunity to do something for someone else for a change. Use humor as long as it doesn't detract from the sincerity of the message.

At the next group session, I will have the opportunity to share my messages with the rest of the group, and to clarify any ambiguous messages and to express the feelings I experienced during this process.

#### GUIDELINES FOR HOMEWORK EXERCISE

- 1 Try to be specific
- 2 Write a special message to each person rather than a comment that could apply to several people.
- 3 Include every participant, even if I am not too well acquainted with them. Choose whatever it is about the person that I respond to most positively.
- 4 Try to tell each person what I have observed as their real strength or notable success in the group, why I would like to know them better or why I am glad to be in the group with them.

#### **SELF-AWARENESS SESSION 8**

So far I have looked at myself using various different techniques that have enabled me to see where I'm going, what I want, and what my principles and belief systems are about.

Today, it's all about attitude

ATTITUDE IS "a disposition, a way a person views something or tends to behave towards it, and notes that this is done in an evaluative way"

In other words, attitude is the way I apply myself to the tasks and challenges of life, based on the judgments I make.

My judgments are the things I think to myself or express to others without ever stopping to really ask if it is right, true, or useful. These judgments can be something I do on the spot, or they can be something I carry with me that I do not regularly think about, but which have an immediate effect on the way I react, think or feel.

We all make judgments, but it is when I become fixed to them and let them determine the way I feel that my judgments give me an attitude – and my attitude is not always a good one, though it can be as well.

Below are some of the most common judgments that addicts cling too – and how my attitude develops from that.

(There is a 'central theme' running through each: an inability or refusal to see things the way they are, based on the judgment that, for whatever reason, I cannot be held fully responsible for the way things are.)

#### NEGATIVE ATTITUDES OF THE ADDICT

##### 1. POOR ME

I make the judgement:

- "they've got everything and I've got nothing".

Which amounts to:

- refusal to take responsibility for improvement.

##### 2. BORN-LOSER

I make the judgment:

- "nothing ever works out for me."

Which really amounts to:

- refusal to take responsibility for improvement.

##### 3. THE VICTIM

I make the judgment:

- "they've done this to me", and: "it's their fault".

Which really amounts to:

- blaming others for your own unhappiness.
- poor self-esteem.

- refusal to take responsibility for improvement.

#### 4. RESENTFUL

I make the judgment:

- "They don't deserve what they've got" and: "If they have it, so should I"

Which really amounts to:

- blaming others for my failure to get the best from life.
- living in the past and being unable to let go of past hurts and misdeeds I feel were inflicted upon me.
- refusal to accept responsibility for improvement.

#### 5. THE CLOWN

I make the judgment:

- "This place needs me to lighten things up" and: "I don't need to be so serious around here"

Which really amounts to:

- always the joker, attention seeking.
- letting myself be noticed by others on a superficial level, but also to keep others from knowing me.
- an escape device to prevent me from looking at myself.

#### 6. THE CYNIC

I make the judgment:

- "This isn't going to work" and: "That's no help to anybody (me)"

Which really amounts to:

- Being a demoralised unrealist who has found that life is not how I expected it to be.
- Dismissing everything so I don't have to take an honest look at myself and my world, or go through the pains of adjustment to reality.

#### 7. THE DREAMER

I make the judgment:

- "she'll be right mate", "one day I'll be O.K."

Which amounts to:

- Living in a fantasy world
- often compensating for my lack of success in reality.
- refusal to accept responsibility for my life.

#### 8. THE PROCRASTINATOR

I make the judgment:

- "I don't need to do this today", or "I will do this better tomorrow"

Which really amounts to:

- Being a "tomorrow" or "maybe" person.
- attempting to evade reality by postponing things.

#### 9. THE GUILT TRIP

I make the judgment:

- "I've really messed up my life", and: "I'm worthless"

Which really amounts to:

- refusal to take responsibility for improvement.

#### 10. KICK ME

I make the judgment:

- "everything I do is wrong".

Which really amounts to:

- poor self-esteem, and wants others to see me as I see myself – a no-hoper.
- again a refusal to accept responsibility for changing my circumstances.

How I challenge and even change my attitude and begin to be more honest will depend on me having a realistic and balanced view about life - my view of others, and also my view of

myself. If I want to be serious and develop a good attitude I need to have an honest look at myself, what I want and need to change, and the abilities I have to achieve what I want. Often I get too tied up in being negative about myself, my situation and others that I lose sight of everything else, don't see how I can possibly have anything positive to offer (or that anyone else has anything positive to offer me) or how I can take the responsibility for running my life. At other times I become lazy and careless about what is important to me, brushing my responsibilities aside. It is then that I let that negative attitude take over. It's up to me to make the changes; no one can do it for me!

How Do I Do It?

- 1 Look at my attitude – honesty with myself is essential. What judgments do I carry with me that may be untrue or even just unhelpful?
- 2 Ask myself: "Is the pay-off I get the one I really need/want – does it allow me to lead a fulfilling life, does it help me to get the best for me?"
- 3 Look at my strengths – my attitude is often developed to cover my weaknesses.
- 4 Utilise my strengths to achieve what I want by taking responsibility for the direction my life takes.
- 5 Each time I catch myself being excessively negative towards myself or others, or becoming careless and lazy – STOP, LOOK at my attitude and its pay-off, look at other ways of achieving what I want.
- 6 Practice taking personal responsibility.
- 7 Don't whip myself when I revert to old ways, simply acknowledge that I am doing it, and then come back to step 5.
- 8 Give myself a pat on the back each time I recognise old bad attitudes and take responsibility for the change.
- 9 Remember: PRACTICE AND PERSISTENCE PAY OFF POSITIVELY!!!

Summary

"Sorry but this is the way I am, I was like this in the beginning, am now and ever shall be..."  
A very handy motto and delusion to have around, if I don't want to grow up.

Homework

- 1 Have an honest look at myself. What judgements do I make? What do I believe about myself or others that affects my attitude? Remember: attitudes can be good and bad.eg:  
"My partner is a great support" vs "My partner is no support"  
"Missiondale is a waste of time" vs "There is so much I am getting out of Missiondale"  
"I will always be a no hoper" vs "I have many strengths I can use to improve my life"
- 2 To determine whether I have a good or bad attitude, first ask myself: what is the purpose of thinking this way? (what do I hope to achieve?)
- 3 Secondly, ask myself what is the outcome of thinking this way in reality? (what do I actually achieve?)
- 4 Now ask myself what the effect of stopping or changing this way of thinking is likely to be.

## Appendix L

### **TAU GROUP**

**Descriptive Statistics**

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| AUDITtime1 | yes    | 26.6154 | 8.93064        | 13 |
|            | no     | 17.6667 | 15.04438       | 3  |
|            | Total  | 24.9375 | 10.34388       | 16 |
| AUDITtime3 | yes    | 10.8462 | 9.21815        | 13 |
|            | no     | 2.6667  | 4.61880        | 3  |
|            | Total  | 9.3125  | 9.03857        | 16 |

**Descriptive Statistics**

|           | time5s | Mean    | Std. Deviation | N  |
|-----------|--------|---------|----------------|----|
| DASTtime1 | yes    | 15.0000 | 9.60902        | 13 |
|           | no     | 19.6667 | 1.15470        | 3  |
|           | Total  | 15.8750 | 8.80814        | 16 |
| DASTtime3 | yes    | 1.5385  | 5.54700        | 13 |
|           | no     | .0000   | .00000         | 3  |
|           | Total  | 1.2500  | 5.00000        | 16 |

**Descriptive Statistics**

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| SDStime1 | yes    | 10.3077 | 3.06552        | 13 |
|          | no     | 10.6667 | 4.04145        | 3  |
|          | Total  | 10.3750 | 3.11716        | 16 |
| SDStime3 | yes    | 5.5385  | 3.90759        | 13 |
|          | no     | 3.6667  | 5.50757        | 3  |
|          | Total  | 5.1875  | 4.10234        | 16 |

**Descriptive Statistics**

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| Deptime1 | yes    | 24.1538 | 11.05928       | 13 |
|          | no     | 18.6667 | 21.38535       | 3  |
|          | Total  | 23.1250 | 12.79518       | 16 |
| Deptime3 | yes    | 11.6923 | 9.15955        | 13 |
|          | no     | 6.0000  | 10.39230       | 3  |
|          | Total  | 10.6250 | 9.31576        | 16 |

### Descriptive Statistics

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| Anxtime1 | yes    | 23.5385 | 9.42174        | 13 |
|          | no     | 11.3333 | 8.08290        | 3  |
|          | Total  | 21.2500 | 10.19477       | 16 |
| Anxtime3 | yes    | 11.2308 | 9.18471        | 13 |
|          | no     | 5.0000  | 7.81025        | 3  |
|          | Total  | 10.0625 | 9.05147        | 16 |

### Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| Stresstime1 | yes    | 24.1538 | 9.77962        | 13 |
|             | no     | 18.0000 | 10.00000       | 3  |
|             | Total  | 23.0000 | 9.79796        | 16 |
| Stresstime3 | yes    | 15.3846 | 8.84627        | 13 |
|             | no     | 9.0000  | 11.35782       | 3  |
|             | Total  | 14.1875 | 9.29673        | 16 |

### Descriptive Statistics

|           | time5s | Mean    | Std. Deviation | N  |
|-----------|--------|---------|----------------|----|
| DASStime1 | yes    | 71.8462 | 25.52726       | 13 |
|           | no     | 48.0000 | 38.00000       | 3  |
|           | Total  | 67.3750 | 28.39454       | 16 |
| DASStime3 | yes    | 38.3077 | 25.86949       | 13 |
|           | no     | 20.0000 | 29.51271       | 3  |
|           | Total  | 34.8750 | 26.57035       | 16 |

### Descriptive Statistics

|           | time5s | Mean     | Std. Deviation | N  |
|-----------|--------|----------|----------------|----|
| FFMQtime1 | yes    | 112.1538 | 13.24038       | 13 |
|           | no     | 116.6667 | 17.47379       | 3  |
|           | Total  | 113.0000 | 13.57449       | 16 |
| FFMQtime3 | yes    | 119.9231 | 14.96363       | 13 |
|           | no     | 123.0000 | 23.57965       | 3  |
|           | Total  | 120.5000 | 15.96246       | 16 |

### Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| IntLOCtime1 | yes    | 30.9231 | 7.21643        | 13 |
|             | no     | 33.3333 | 5.77350        | 3  |

|             |       |         |          |    |
|-------------|-------|---------|----------|----|
| IntLOCtime3 | Total | 31.3750 | 6.85930  | 16 |
|             | yes   | 30.2308 | 7.56256  | 13 |
|             | no    | 27.0000 | 15.71623 | 3  |
|             | Total | 29.6250 | 8.96568  | 16 |

#### Descriptive Statistics

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| ChLOCtime1 | yes    | 24.2308 | 12.13228       | 13 |
|            | no     | 12.3333 | 4.50925        | 3  |
|            | Total  | 22.0000 | 11.97776       | 16 |
| ChLOCtime3 | yes    | 19.6154 | 10.48442       | 13 |
|            | no     | 6.6667  | 5.03322        | 3  |
|            | Total  | 17.1875 | 10.88864       | 16 |

#### Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| PowLOCtime1 | yes    | 23.0000 | 14.88288       | 13 |
|             | no     | 9.0000  | 7.54983        | 3  |
|             | Total  | 20.3750 | 14.71904       | 16 |
| PowLOCtime3 | yes    | 19.0769 | 12.80925       | 13 |
|             | no     | 2.6667  | 3.05505        | 3  |
|             | Total  | 16.0000 | 13.27655       | 16 |

### TAU+MiCBT GROUP

#### Descriptive Statistics

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| AUDITtime1 | yes    | 27.5455 | 10.53910       | 11 |
|            | no     | 18.6000 | 15.96246       | 5  |
|            | Total  | 24.7500 | 12.66228       | 16 |
| AUDITtime3 | yes    | 8.7273  | 6.08426        | 11 |
|            | no     | 6.000   | 1.34164        | 5  |
|            | Total  | 6.1875  | 6.34790        | 16 |

#### Descriptive Statistics

|           | time5s | Mean    | Std. Deviation | N  |
|-----------|--------|---------|----------------|----|
| DASTtime1 | yes    | 11.2727 | 10.06072       | 11 |
|           | no     | 16.8000 | 9.98499        | 5  |
|           | Total  | 13.0000 | 10.05319       | 16 |
| DASTtime3 | yes    | 2.0909  | 6.93476        | 11 |
|           | no     | .0000   | .00000         | 5  |

|       |        |         |    |
|-------|--------|---------|----|
| Total | 1 4375 | 5 75000 | 16 |
|-------|--------|---------|----|

Descriptive Statistics

|          | time5s | Mean    | Std Deviation | N  |
|----------|--------|---------|---------------|----|
| SDStime1 | yes    | 9 2727  | 2 19504       | 11 |
|          | no     | 10.4000 | 4.39318       | 5  |
|          | Total  | 9 6250  | 2.94109       | 16 |
| SDStime3 | yes    | 3.4545  | 3.47458       | 11 |
|          | no     | 4.4000  | 3.57771       | 5  |
|          | Total  | 3.7500  | 3.41565       | 16 |

Descriptive Statistics

|          | time5s | Mean    | Std Deviation | N  |
|----------|--------|---------|---------------|----|
| Deptime1 | yes    | 27.4545 | 8.10387       | 11 |
|          | no     | 25 2000 | 10.44988      | 5  |
|          | Total  | 26.7500 | 8 60620       | 16 |
| Deptime3 | yes    | 14.3636 | 13 35120      | 11 |
|          | no     | 11.2000 | 3 63318       | 5  |
|          | Total  | 13.3750 | 11 16468      | 16 |

Descriptive Statistics

|          | time5s | Mean    | Std Deviation | N  |
|----------|--------|---------|---------------|----|
| Anxtime1 | yes    | 22.3636 | 10.57613      | 11 |
|          | no     | 26.8000 | 7.15542       | 5  |
|          | Total  | 23.7500 | 9 62981       | 16 |
| Anxtime3 | yes    | 12.1818 | 10 52443      | 11 |
|          | no     | 14.8000 | 7 29383       | 5  |
|          | Total  | 13.0000 | 9.46573       | 16 |

Descriptive Statistics

|             | time5s | Mean    | Std Deviation | N  |
|-------------|--------|---------|---------------|----|
| Stresstime1 | yes    | 28.9091 | 7 06335       | 11 |
|             | no     | 32 8000 | 5 93296       | 5  |
|             | Total  | 30 1250 | 6.79093       | 16 |
| Stresstime3 | yes    | 15 2727 | 9.89031       | 11 |
|             | no     | 17.2000 | 10.63955      | 5  |
|             | Total  | 15.8750 | 9.81071       | 16 |

Descriptive Statistics

|           | time5s | Mean    | Std. Deviation | N  |
|-----------|--------|---------|----------------|----|
| DASStime1 | yes    | 78.7273 | 21.24660       | 11 |



|           |       |         |          |    |
|-----------|-------|---------|----------|----|
|           | no    | 84.8000 | 13.97140 | 5  |
|           | Total | 80.6250 | 19.01184 | 16 |
|           | yes   | 41.8182 | 30.97682 | 11 |
| DASStime3 | no    | 43.2000 | 20.52316 | 5  |
|           | Total | 42.2500 | 27.43113 | 16 |

#### Descriptive Statistics

|           | time5s | Mean     | Std. Deviation | N  |
|-----------|--------|----------|----------------|----|
| FFMQtime1 | yes    | 103.9091 | 9.83315        | 11 |
|           | no     | 102.4000 | 11.73882       | 5  |
|           | Total  | 103.4375 | 10.08609       | 16 |
| FFMQtime3 | yes    | 126.6364 | 23.13557       | 11 |
|           | no     | 124.8000 | 29.85297       | 5  |
|           | Total  | 126.0625 | 24.39800       | 16 |

#### Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| IntLOctime1 | yes    | 28.9091 | 8.52590        | 11 |
|             | no     | 27.4000 | 7.19722        | 5  |
|             | Total  | 28.4375 | 7.92438        | 16 |
| IntLOctime3 | yes    | 31.1818 | 9.04232        | 11 |
|             | no     | 31.6000 | 4.27785        | 5  |
|             | Total  | 31.3125 | 7.70903        | 16 |

#### Descriptive Statistics

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| ChLOctime1 | yes    | 21.8182 | 9.15225        | 11 |
|            | no     | 19.0000 | 5.78792        | 5  |
|            | Total  | 20.9375 | 8.16063        | 16 |
| ChLOctime3 | yes    | 19.5455 | 8.97066        | 11 |
|            | no     | 11.2000 | 8.46759        | 5  |
|            | Total  | 16.9375 | 9.41962        | 16 |

#### Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| PowLOctime1 | yes    | 19.9091 | 7.87978        | 11 |
|             | no     | 17.8000 | 12.27599       | 5  |
|             | Total  | 19.2500 | 9.08845        | 16 |
| PowLOctime3 | yes    | 18.7273 | 9.02320        | 11 |
|             | no     | 13.8000 | 11.43241       | 5  |
|             | Total  | 17.1875 | 9.73118        | 16 |

## MiCBT-only GROUP

**Descriptive Statistics**

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| AUDITtime1 | yes    | 24.6000 | 13.50062       | 10 |
|            | no     | 24.5000 | 14.47411       | 6  |
|            | Total  | 24.5625 | 13.38640       | 16 |
| AUDITtime3 | yes    | 6.7000  | 5.61842        | 10 |
|            | no     | 9.3333  | 15.20088       | 6  |
|            | Total  | 7.6875  | 9.88412        | 16 |

**Descriptive Statistics**

|           | time5s | Mean    | Std. Deviation | N  |
|-----------|--------|---------|----------------|----|
| DASTtime1 | yes    | 13.5000 | 8.70823        | 10 |
|           | no     | 19.1667 | 6.58534        | 6  |
|           | Total  | 15.6250 | 8.24520        | 16 |
| DASTtime3 | yes    | .0000   | .00000         | 10 |
|           | no     | .0000   | .00000         | 6  |
|           | Total  | .0000   | .00000         | 16 |

**Descriptive Statistics**

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| SDStime1 | yes    | 10.6000 | 2.54733        | 10 |
|          | no     | 10.6667 | 1.03280        | 6  |
|          | Total  | 10.6250 | 2.06155        | 16 |
| SDStime3 | yes    | 5.2000  | 3.99444        | 10 |
|          | no     | 3.5000  | 3.20936        | 6  |
|          | Total  | 4.5625  | 3.70529        | 16 |

**Descriptive Statistics**

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| Deptime1 | yes    | 29.0000 | 7.73161        | 10 |
|          | no     | 35.3333 | 8.91441        | 6  |
|          | Total  | 31.3750 | 8.50784        | 16 |
| Deptime3 | yes    | 11.0000 | 8.70504        | 10 |
|          | no     | 23.3333 | 13.83715       | 6  |
|          | Total  | 15.6250 | 12.13741       | 16 |

**Descriptive Statistics**

|          | time5s | Mean    | Std. Deviation | N  |
|----------|--------|---------|----------------|----|
| Anxtime1 | yes    | 24.0000 | 11.92570       | 10 |
|          | no     | 31.0000 | 6.03324        | 6  |
|          | Total  | 26.6250 | 10.47457       | 16 |
| Anxtime3 | yes    | 8.8000  | 8.06639        | 10 |
|          | no     | 24.6667 | 10.78270       | 6  |
|          | Total  | 14.7500 | 11.86311       | 16 |

**Descriptive Statistics**

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| Stresstime1 | yes    | 25.2000 | 9.29516        | 10 |
|             | no     | 34.6667 | 4.67618        | 6  |
|             | Total  | 28.7500 | 9.02958        | 16 |
| Stresstime3 | yes    | 11.8000 | 8.96660        | 10 |
|             | no     | 22.6667 | 8.26236        | 6  |
|             | Total  | 15.8750 | 10.02580       | 16 |

**Descriptive Statistics**

|           | time5s | Mean     | Std. Deviation | N  |
|-----------|--------|----------|----------------|----|
| DASStime1 | yes    | 78.2000  | 26.64082       | 10 |
|           | no     | 101.0000 | 15.27089       | 6  |
|           | Total  | 86.7500  | 25.17009       | 16 |
| DASStime3 | yes    | 31.6000  | 23.95922       | 10 |
|           | no     | 72.0000  | 32.96058       | 6  |
|           | Total  | 46.7500  | 33.38563       | 16 |

**Descriptive Statistics**

|           | time5s | Mean     | Std. Deviation | N  |
|-----------|--------|----------|----------------|----|
| FFMQtime1 | yes    | 115.1000 | 18.45987       | 10 |
|           | no     | 98.1667  | 21.34869       | 6  |
|           | Total  | 108.7500 | 20.68977       | 16 |
| FFMQtime3 | yes    | 132.0000 | 24.95329       | 10 |
|           | no     | 121.8333 | 16.94009       | 6  |
|           | Total  | 128.1875 | 22.25075       | 16 |

**Descriptive Statistics**

|  | time5s | Mean | Std. Deviation | N |
|--|--------|------|----------------|---|
|--|--------|------|----------------|---|

|             |       |         |         |    |
|-------------|-------|---------|---------|----|
| IntLOctime1 | yes   | 31.8000 | 6.64664 | 10 |
|             | no    | 21.5000 | 4.92950 | 6  |
|             | Total | 27.9375 | 7.81851 | 16 |
| IntLOctime3 | yes   | 32.6000 | 7.21418 | 10 |
|             | no    | 25.6667 | 9.58471 | 6  |
|             | Total | 30.0000 | 8.59457 | 16 |

Descriptive Statistics

|            | time5s | Mean    | Std. Deviation | N  |
|------------|--------|---------|----------------|----|
| ChLOctime1 | yes    | 23.8000 | 9.69307        | 10 |
|            | no     | 22.5000 | 6.83374        | 6  |
|            | Total  | 23.3125 | 8.50662        | 16 |
| ChLOctime3 | yes    | 15.3000 | 7.04036        | 10 |
|            | no     | 16.3333 | 9.64711        | 6  |
|            | Total  | 15.6875 | 7.81212        | 16 |

Descriptive Statistics

|             | time5s | Mean    | Std. Deviation | N  |
|-------------|--------|---------|----------------|----|
| PowLOctime1 | yes    | 21.0000 | 13.38324       | 10 |
|             | no     | 23.3333 | 8.82421        | 6  |
|             | Total  | 21.8750 | 11.60962       | 16 |
| PowLOctime3 | yes    | 19.5000 | 8.83491        | 10 |
|             | no     | 15.5000 | 10.98636       | 6  |
|             | Total  | 18.0000 | 9.54289        | 16 |