Effects of Mindfulness-based Cognitive Therapy on Mindfulness Skills, Acceptance and Spiritual Intelligence in patients with Depression

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The present investigation was aimed at examining the effects of Mindfulness-based Cognitive Therapy (MBCT) on mindfulness skills, acceptance and spiritual intelligence in patients with depression. Sample consisted of five patients with a diagnosis of Recurrent Depressive Disorder as per ICD-10. A single case design with pre- and post-intervention assessment was adopted. The sample was assessed on Socio-Demographic and Clinical Data Sheet, Beck Depression Inventory, Kentucky Inventory of Mindfulness Skills, Acceptance and Action Questionnaire-II, Integrated Spiritual Intelligence Scale and Therapeutic Experience Schedule. Quantitative analysis revealed clinically significant reduction in the severity of depression and considerable to significant improvements in acceptance, improvement in mindfulness skills and spiritual intelligence. Qualitative analysis revealed themes of ‘awareness’, ‘acceptance’ and ‘enhanced coping’.

Keywords: mindfulness, mindfulness-based cognitive therapy, mindfulness skills, acceptance, spiritual intelligence, depression.

In the last 25 years, mindfulness and intervention based on it has become the focus of considerable attention for a large community of clinicians and researchers. Mindfulness has been described as a process of bringing a certain quality of attention to moment-by-moment experience (Kabat-Zinn, 1990). Mindfulness in contemporary psychology has been adopted as an approach for increasing awareness and responding skillfully to mental processes that contribute to emotional distress and maladaptive behavior. Much of the interest in the clinical applications of mindfulness has been sparked by the introduction of Mindfulness-Based Stress Reduction (MBSR), a manualized treatment program originally developed for the management of chronic pain (Kabat-Zinn, 1982).

Depression is one of the most common psychological disorders affecting 340 million people in the world today. In India, the prevalence rate for major depression was found to be 31.2 per 1000 (Murali, 2001). Even after successful acute treatment, depression is known to have a high risk of relapse which increases dramatically with numbers of previous episodes (Solomon et al., 2000). The majority of the burden attributable to depression could be offset through interventions aimed at the prevention of relapse/recurrence (Vos et al., 2004). Mindfulness-based Cognitive Therapy (MBCT) is a promising relapse prevention program, developed by Segal, Williams and Teasdale (2002), was specifically designed to target vulnerability processes that cognitive research has identified as playing a causative role in depressive relapse. It is eight-week program that combines training in mindfulness meditation, following the approach developed by Kabat-Zinn (1990), with interventions from cognitive therapy (Beck, Rush, Shaw, & Emery, 1979), with the emphasis of treatment on acceptance, change, integrating spiritual component of mindfulness into traditional cognitive behavior therapies (Hayes, 2004).

MBCT teaches as its core skill the ability to become more aware, to recognize and disengage from habitual (automatic) dysfunctional cognitive routines, in particular depression-related ruminative thought patterns, and to adopt a stance toward experience, which is characterized by openness,
curiosity and acceptance, rather than experiential avoidance, as a way to reduce future risk of relapse and recurrence of depression (Segal, William, & Teasdale, 2002; Ma & Teasdale, 2004). Integral to the technique of mindfulness, are mechanisms of exposure, acceptance and cognitive change (Hayes, 2004), and it is also implicated in increasing empathy and spirituality (Shapiro, Oman, Thoresen, Plante & Flinders, 2008). Spiritual intelligence has been defined as the intelligence with which we address and solve problems of meaning and value, the intelligence with which we can place our actions and our lives in a wider, richer, meaning-giving context (Zohar & Marshall, 2000) and as the ability to draw, apply and embody spiritual resources and qualities to enhance daily functioning and wellbeing (Amram, 2007). The practice of mindfulness appears relevant in the development of these qualities.

Mindfulness-based Interventions have been applied to a variety of stress related conditions, medical conditions, and emotional disorders and have been found to be efficacious (Bishop, 2002; Baer, 2003; Grossman, Niemann, Schmidt & Walach, 2004; Fjorback, ArendtØrnbøl, Fink, & Walach, 2011). In India, few studies have provided evidence for their usefulness and efficacy in clinical and non-clinical samples (Sharma, Kumaraiah, Mishra & Balodhi, 1990; Mao, 2003; Goyal, 2004; Narayan; 2005; Majgi, Sharma & Sudhir, 2006; Parswani, 2007; Majgi 2009; Kaur, 2010). Recently, there has been a shift in the interest of researchers from efficacy based research to process based research in the area of mindfulness. Research has suggested that mindfulness cultivated during MBSR and MBCT decreases ruminative thinking by switching emotional processing modes by intentional redeployment of attention, dysfunctional beliefs, and significantly increases meta-cognitive awareness with respect to negative thoughts and feelings (Teasdale, 1999; Ramel, Goldin, Carmona, & McQuaid (2004) that significantly reduced relapse in depression (Teasdale et al., 2002).

Qualitative studies have identified areas of therapeutic change such as awareness, 'coming to terms', development of mindfulness skills, an attitude of acceptance without judgment and 'living in the moment', positive change in levels of acceptance and changes in participants' way of thinking and feeling, and in their relation with the others (Mason & Hargreaves, 2001; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008; Cebolla & Miró Barrachina, 2008; Jimenez, 2009; Splevins, Smith, & Simpson, 2009) Mindfulness was positively associated with greater psychological well-being and spiritual experience (Astin, 1997; Brown and Ryan, 2003). Five major themes namely opening to change, self-control, shared experience, personal growth, and spirituality have been reported by Mackenzie, Carlson, Munozl, and Speca (2007). Though there is considerable evidence for the efficacy of mindfulness-based interventions in variety medical and psychological conditions, there is a paucity of research examining variables that make therapies efficacious and whether they can also contribute to bringing a change in the spiritual wellbeing in clinical samples. Sharma (2002) has observed that research on mindfulness in India is in its initial stage with limited work examining the efficacy of this therapy. The aim of the present investigation was to examine the effects of MBCT on mindfulness skills, acceptance and spiritual intelligence in patients with depression, with the objectives to examine the efficacy of MBCT in reducing the severity of depression, to explore and document changes in mindfulness skills, acceptance or psychological flexibility and spiritual intelligence.

Method
Participants

Five patients (3 females and 2 males) with a ICD-10 (World Health Organization, 1992) diagnosis of Recurrent Depressive Disorder were recruited from the outpatient services of NIMHANS, Bangalore. The patients met the inclusion criteria of diagnosis of mild-moderate depression or recurrent depression, BDI score of 14-28, age range between 18-55 years, stabilized on medication for a period of 2 months, minimum educational qualification of X standard and an ability to comprehend English language. Patents were excluded if they had history of organicity, neurological defects, mental retardation, serious medical conditions, dysthymia.
or chronic depression/depression with psychotic symptoms, other axis I disorders or personality disorders, and having undergone any psychological intervention for depression in the last 1 year. The research protocol of the study was reviewed and approved by Department of Clinical Psychology’s Protocol Review Committee for technical and ethical purpose. Informed consent was obtained from the patients, participation was voluntary and no incentives were offered.

Design
A single case design with pre and post assessment was adopted to evaluate the changes in the sample in response to the intervention.

Measures
1. Socio Demographic and Clinical Data Sheet (SDCS): This data sheet was developed to obtain information about socio-demographic characteristics of patients, including details of illness and treatment history.
2. Beck Depressive Inventory (BDI): The BDI is a 21-item self-report widely used measure of depressive symptoms with good psychometric properties (Rabkin & Klein, 1987).
3. Kentucky Inventory of Mindfulness Skills (KIMS): Developed by Baer, Smith, & Allen (2004), this is a 39-item self-report inventory that was used for the assessment of mindfulness skills on mainly four aspects, i.e., observing, describing, act with awareness, and accept without judgment.
4. Acceptance and Action Questionnaire II (AAQ-II): This scale developed by Bond et al., (2011) was used to assess patient’s experiential avoidance - the attempt to alter the form, frequency, or situational sensitivity of negative private events (e.g., thoughts, feelings, and physiological sensations; and acceptance - the willingness to experience (i.e., not alter the form, frequency, or sensitivity of) unwanted private events, in the pursuit of one’s values and goals.
5. Integrated Spiritual Intelligence Scale (ISIS): This scale was developed by Amram and Dryer (2008) as a measure of spiritual intelligence. It is a 45-item self-report instrument and has shown satisfactory factor structure, internal consistency, test-retest reliability and construct validity. It contains 22 subscales assessing separate spiritual intelligence capabilities.
6. Therapeutic Experience Schedule (TES): It was developed for the present study to gain qualitative insight into patients’ experience and gains from therapy and to substantiate the findings obtained on the above mentioned measures.

Procedure
The study was carried out on 5 patients. The therapeutic program consisted of 8, weekly sessions, lasting approximately 90 minutes each, held with each patient individually. A total of 11-12 sessions spread over a period of 9-10 weeks having specific goals and tasks for the specific week, including the 8 therapy sessions, and pre- and post-intervention assessments. The contents of intervention program were adapted from Segal, Williams, and Teasdale’s (2002) work with few modifications, as the present study entailed individual therapy. After the completion of the therapy, lasting 8 weeks, the post-intervention assessment was carried out using quantitative and qualitative measures.

The data was quantitatively analyzed by comparing the pre-intervention and post-intervention assessment scores to assess the effects of therapeutic intervention using Blanchard and Schwarz’s (1988) formula for clinically significant change (i.e. 50% and above). Responses obtained from the participants on the Therapeutic Experience Schedule (TES) were qualitatively analyzed using thematic analysis (Braun & Clarke, 2006).

Results and Discussion
The present investigation was undertaken to examine the effects of MBCT on mindfulness skills, acceptance and spiritual intelligence in patients with depression. Sample of the present study comprised of 3 male and 2 female patients with a diagnosis of Recurrent Depressive Disorder in age range of 29 years to 50 years (mean age = 38.40 years), 3 were Hindus and 2 were Christians, 3 were married and 2 unmarried 3 were married and 2 unmarried, 4 were graduate and 1 was post graduate, 3 were IT professional and 2 were homemakers, and all were
from nuclear families. Duration for illness ranged 9 years to 14 years (mean=9.60 years). All were stabilized on medication for at least for 2 months and their medication status remained the same during the study.

Results in terms of pre- and post-intervention assessment scores and improvement percentage on all the measures for all the 5 cases are shown in Table 1. Scores on Beck Depression Inventory (BDI) reveal clinically significant reduction in the symptom severity of depression for all the 5 cases. The improvement ranged between 62.5 – 81.5%, which was clinically significant. The finding of the present study is similar to those reported earlier (e.g., Kenny & Williams, 2007; Splevins, Smith, & Simpson, 2009) where MBCT was found to be efficacious in improving depression scores in currently actively depressed patients from pre to post assessment. However, methodological differences exist between the reported studies and the present study in terms of sample size and individual case format of the study, as opposed to the group format. This reduction in severity of depression may be explained on the basis of reduction in ruminative patterns of thinking, increased accessibility of meta-cognitive sets, improvement in mindfulness skills, and other mechanisms associated with the practice of mindfulness meditation (Ramel, Goldin, Carmona, & McQuaid, 2004; Mason & Hargreaves, 2001; Shapiro, Oman, Thoresen, Plante, & Flinders, 2008; Cebolla & Miró Barrachina, 2008; Jimenez, 2009; Splevins, Smith, & Simpson, 2009).

Table 1

<table>
<thead>
<tr>
<th>Index Case No.</th>
<th>BDI Pre</th>
<th>BDI Post</th>
<th>BDI IP</th>
<th>KIMS Pre</th>
<th>KIMS Post</th>
<th>KIMS IP</th>
<th>AAQ-II Pre</th>
<th>AAQ-II Post</th>
<th>AAQ-II IP</th>
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<th>ISIS Post</th>
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<td>10</td>
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</table>

IP = Improvement Percentage (in %), * Clinically Significant

The results also indicate improvement in mindfulness skills from pre-intervention to post-intervention assessment as measured on Kentucky Inventory of Mindfulness Skills (KIMS) was observed in all cases, however, only in 1 case satisfied the criterion of clinically significant improvement (Case IV-51.8%). The range of improvement for the remaining 4 patients was observed to be between
12.8 – 33.3%. The results are similar to the findings of Mason and Hargreaves (2001), Splevins, Smith, and Simpson (2009) who also reported significant improvement of mindfulness skills subsequent to 8-weeks of MBCT. Carmody and Baer (2008), Shapiro, Oman, Thoresen, Plante, and Flinders (2008) have also reported similar results. However, the degree of improvement may not comparable owing to methodological differences between these studies and the present study.

Results indicated that enhanced acceptance in all 5 cases, as measured by the Acceptance and Action Questionnaire (AAQ-II) following MBCT. The scores were observed to improve from pre-intervention to post-intervention assessment and improvement ranging from 42.8 –83.8%, implying clinically significant improvement in 4 out of 5 cases. These findings are similar with previous research findings of Mason and Hargreaves (2001) and Cebolla and Miró Barrachina (2008), who reported that 8-weeks of MBCT led to the development of good levels of acceptance and participants noticing changes in their way of thinking, of feeling, and in their relation with the others. Development of acceptance is appears to be mediated by to the cultivation of mindfulness skills. Mason and Hargreaves (2001) in their qualitative analysis of participants’ account on MBCT have reported the important areas of therapeutic change such as ‘coming to terms’, development of mindfulness skills, an attitude of acceptance and ‘living in the moment’.

Results indicated improvement in scores on the Integrated Spiritual Intelligence Scale (ISIS), measuring spiritual intelligence, from pre-intervention to post-intervention assessment on all 5 cases, however, not satisfying the criterion of clinical significance. The improvement was observed to range from 9.6 – 46.6%. These findings are similar to the findings reported by Astin (1997), and Mackenzie, Carlson, Munozl, and Speca (2007), who reported that 8-weeks practice of mindfulness meditation, was related to higher experience of spirituality. Jain et al. (2007) have observed no significant effects on spiritual experience in their study. It may be possible to assume that patients with clinical depression, would be significantly distressed and lacking this resource (Hale, 1997). Recovery from the active phase of depression would be a prerequisite to developing more adequate internal resources. Hence, the findings of the present study are encouraging to demonstrate improvements in spiritual intelligence in patients with active depression, even thought not satisfying criterion of clinical significance.

Qualitative analysis of responses on the Therapeutic Experience Schedule (TES) revealed themes of ‘awareness’, ‘acceptance’ and ‘enhanced coping’. Another theme that emerged from the qualitative analysis of the patients’ responses on the Therapeutic Experience Schedule was ‘enhanced coping’. This theme was related to the subthemes of sense of control, management of anxiety, sense of stability, management of feelings/moods, sense control over impulsivity, and enhanced functionality. According to Baer (2003), improved self-observation resulting from mindfulness training may promote use of a range of coping skills, by recognition of early signs of a problem. The enhanced coping is an aspect of spiritual well being, thus, the theme of ‘enhanced coping’ that emerged from the qualitative analysis of the TES, substantiates the improvement observed on the ISIS.

There are certain limitations to the study such as having a limited generalizability because of the small sample size. The present study could not establish the maintenance of the therapeutic gains over a sufficient period of time, because of the inability to carry out follow-up assessments on all patients, due to time constraints. To improve the strength of research in this area, larger sample sizes would be able to enhance the generalizability of results and the confidence in the findings and follow-up assessments would be able to establish the effectiveness of the therapeutic gains over a period of time. The use of a semi-structured interview as a tool would be able to provide deeper insights into the therapy process and outcome.
Conclusion

Subsequent to the 8-weeks of MBCT, patients diagnosed with depression were found to have reductions in the severity of depression to clinically insignificant levels, improvement in mindfulness skills, especially awareness, improvement in acceptance, and spiritual intelligence. The present study is among the initial attempts made in India to study the effect of MBCT on factors mediating the improvement in depression. The findings of the present study provide important information about the mediatory factors, which would help in planning more effective interventions and implicates the role of the practice of mindfulness meditation in developing mindfulness skills, acceptance and spiritual intelligence, in not only healthy groups, but in clinical groups as well; thus, contributing towards developing cost-effective interventions for depression in the Indian setting.

References


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