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The impact of mindfulness based cognitive therapy on anxiety in the indian students

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ABSTRACT—*Mindfulness based cognitive therapy (MBCT) helps in treating various psychological issues. During academic years students often report different forms of anxiety. Many therapist and academicians contended that MBCT can have positive effects on anxiety among students. This research examines the impact of MBCT on anxiety in the Indian students. The State-Trait Anxiety Inventory (STAI-2) was used to assess baseline scores. We therefore administered the MBCT in students with severe anxiety (N=25) and compared findings at pre-mid-post intervals. The results show that MBCT helps in reducing anxiety among Indian students.*

KEYWORDS— *Anxiety, MBCT, Students, Indian.*

I. INRODUCTION

All around the world Vipassana has been known as an ancient and powerful Indian meditative form. Vipassana basically means to observe things in a special way (Sharma, Mao & Sudhir, 2002). Mindfulness is the modern term used for it. "Mindfulness based cognitive therapy (MBCT) is a fusion of mindfulness based stress reduction along with Beck's cognitive restructuring" (Segal, Teasdale, Williams & Gemar 2002). MBCT has been widely accepted as an effective therapy in treating mental health disorders (Sulit, 2018). MBCT is the one of the most famous approach of 20th century and its impact on the mental health is positive (Strauss, Bond & Cavanagh, 2015). For clinical population MBCT is a blessing as it is easy to learn, can be practised alone as well in group and is cost effective. MBCT includes eight sessions. During sessions subjects are taught to watch their thoughts, emotions and bodily sensations in a non-judgemental way.

Anxiety is characterized by dysfunction of affective, behavioural, physiological and cognitive mechanism (Greeson, 2009). It is assumed that mindfulness based cognitive therapy enables a person to practise detachment in conscious experience, which in turn minimize the conflict between present state of mind and future worries (Marchand, 2012).

Do mindfulness based cognitive therapy affect anxiety? I think they do, but the question is to what extent. I think that there are different social, personal, political, economical and cultural factors that exist and may affect the impact of MBCT. In addition, there are too many variables we can't control that are responsible for anxiety among students.

Aim of the study

The main objectives of the study are as follow:

To investigate the impact of MBCT on anxiety in Indian students.

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To find out the current status of MBCT and anxiety in Indian students.

In response to the above objectives, the following key questions were asked:

What is the impact of MBCT on anxiety in Indian students?

What is the current status of MBCT and anxiety in Indian students.

II. LITERATURE REVIEW

Many studies have been done on "mindfulness based cognitive therapy and anxiety". Some of studies are as follows:

Mindfulness based cognitive therapy have been related with "increased pleasant affect, reduced negative symptoms as well state of emotional disturbance i.e. anger and anxiety (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006; Beitel, Ferrer. & Cecero, 2004; Brown & Ryan, 2003; Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007; McKee, Zvolensky, Solomon, Bernstein, & Leen- Feldner, 2010; Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006)".

Researchers used to cover mindfulness based therapies under the umbrella of positive psychology, which is associated with positive psychological states i.e. joy, satisfaction, mental health and healthy interpersonal and intrapersonal relationships (Emmons & Mishra 2011).Furthermore, positive psychological states are related to attention span and capacity to cope in difficult life situations hence plays important role in learning adaptation among humans (Fredrickson & Losada 2005).

Borkovec and Costello (1993) found that relaxation and mindfulness based cognitive therapy leads to enhanced improvement in functioning of patients suffering with generalized anxiety disorder.

The cognitive-behavioural approach focuses on the ABC model. Cognitive-behavioural therapy has been found to be an effective approach for dealing with negative emotions leading to worry and anxiety (Kellner, Bry, & Colletti, 2002).

Kendall (1994) conducted a 4-month duration research to see the impact of cognitive behaviour therapy techniques on anxiety. Results of this study suggested that most participants were free from the diagnosis for an anxiety related disorder. Barrett, Duffy, Dadds, and Rapee (2001) too reported same findings for the effectiveness of cognitive behaviour therapy applications for anxiety. Similar findings were reported by Mogg and Bradley (2005) regarding anxiety, as anxiety is characterized with increased arousal, muscle tension, and various other physiological symptoms relaxation of mind and body attained through meditation practices, may result in decreasing anxiety and stress symptoms for all groups.

Bogels (2004) in his study showed significant improvement from pre-test to post- test measures on self-report symptoms of social anxiety and clinician rating of anxiety among participants. This result is consistent with the other studies done on anxiety spectrum problems among adolescents. It was also found that subjects corrected their earlier avoidance-based coping strategies with the help of mindfulness based cognitive therapy. Mindfulness based cognitive therapy has been found to significantly control GAD symptoms. The changes in symptoms of anxiety are in line with previous investigations associating the practice of mbct and an increase in positivity (Amutio et al.,2013).

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MBCT fosters acceptance and patience hence it is helpful in dealing with irrational thoughts that often leads to anxiety (Segal et al., 2002).

Luciano (2014) found that acceptance and self-compassion are two pillars that are known as resulting mediators of mindfulness based cognitive therapy. Anxiety run in cycle that is developed and maintained by helplessness related beliefs and fear of catastrophizing events, Mindfulness based cognitive therapy breaks the cycle by bringing attention to present moment.

Roemer and Orsillo (2005) documented that, people having generalized anxiety disorder perceive all experiences and physiological sensations as negative which results in a tendency to escape from such unpleasant experiences people used to worry.

Williams (2012) assessed "the impact of mindfulness-based cognitive therapy on health anxiety by comparing the impact of mindfulness based cognitive therapy in addition to usual services with unrestricted services". Total seventy four subjects were randomized in two groups. Self-report measures were used to assess intensity of symptoms related with hypochondria. The result from the present study depicted that "the intention to- treat (ITT) analysis (N = 74) on mindfulness based cognitive therapy subjects had significantly lower health anxiety as compared from US participants on both immediately (Cohen's d = 0.48) as well after one year (d = 0.48) following the intervention". Between groups effect size at post intervention was found to be d = 0.49 and d = 0.62 at one-year follow-up. Mindfulness based cognitive therapy analysis showed that "practicing mindfulness resulted in changes in health anxiety symptoms".

In last, it can be concluded that almost all of the researches have a significant positive effect of MBCT on anxiety.

III. METHODOLOGY

As the aim of present research was to see the impact of mindfulness based cognitive therapy on anxiety in Indian students. Twenty five students received therapeutic training in eight sessions. The pre, middle and post scores were recorded for the statistical analysis.

Inclusion criteria:

- Voluntary participation.
- Age group 16-19 years.
- Can read/write Hindi/English
- Subjects scoring high on anxiety scale.
- Exclusion criteria:
- Subjects having any psychotic symptoms or medical illness.
- Subjects on any kind of medication.

TOOL USED:

In the present research State-Trait Anxiety Inventory (STAI, Spielberger, 1970) was used to assess baseline score. The STAI is designed to be self-administering. Furthermore, it can be given individually as well in group settings. The inventory has no time limit constraints. "The present version is Form Y (STAI Form Y) , The S-

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Anxiety scale (STAI Form Y-1) and T-Anxiety scale (STAI Form Y-2) both consists 20-20 items i.e. total 40 statement are there in STAI". These tests are answered on the basis of a 1 (not at all) to 4(very much so) scale.

PROCEDURE

The therapeutic program consisted of approximately 24 sessions for each subject over a period of one year. The sessions were conducted in group. Each session lasted for 90 minutes. Mindfulness based cognitive therapy has eight sessions in which two are made for assessment purpose and rest six for therapeutic skills learning. "In present research six sessions were spent for assessment at three time periods (pre-mid-post) and rest eighteen sessions for therapy". These eighteen sessions counted because each session was practised for three time for better understanding. Mindfulness based cognitive therapy has its core in psycho-education throughout its eight sessions. MBCT utilizes cognitive and behavioural strategies that could be used to help adolescents in dealing with anxiety. Before implementing therapeutic intervention, these sessions were made structured and fairly predictable proceeding to one another. Various activities and concepts were introduced to participants during these sessions. Also previous sessions were made as ground base for the next upcoming sessions. It was ensured that this intervention based programme effectively integrated all key ingredients of mindfulness as well as cognitive behavioural approaches so that results obtained would be in desired direction.

Table 1: Outcome of variable Anxiety score (Descriptive Statistics**)**

Variable	Level	N	M	SD	SEM
Anxiety score	Baseline	25	123.28	16.17	3.23
	Middle	25	94.20	12.58	2.51
	Post	25	50.56	7.00	1.40

Note: N- Number of Participants; **M**- Mean; **SD**- Standard Deviation; **SEM**- Standard Error of Mean

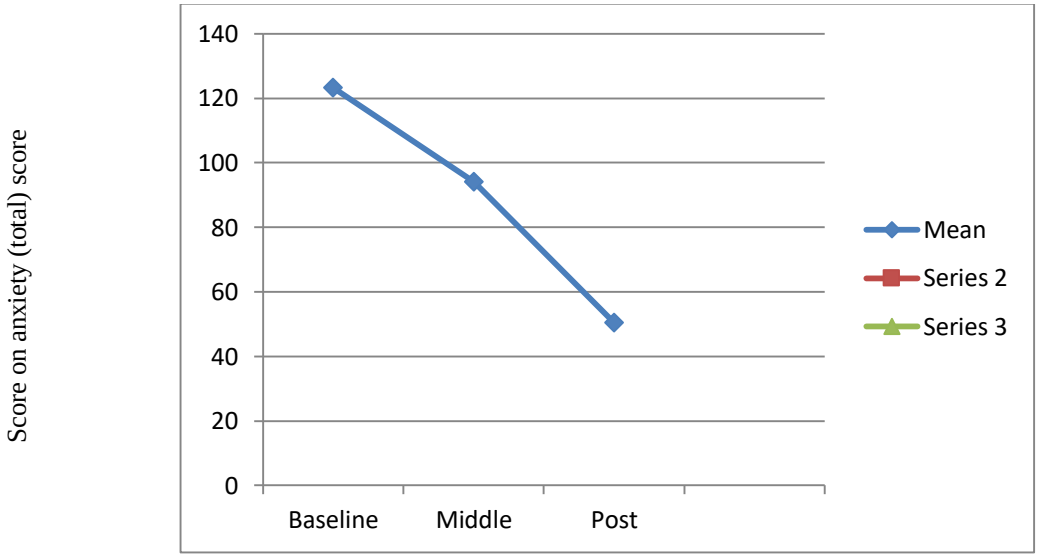

Figure 1: Graphical presentation of outcome of the variable Anxiety score

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The outcome obtained by analyzing the results depicted in the Table No 1 ,displayed significant reductions in the scores of anxiety total score from baseline (M=123.28, SD=16.17) to middle phase (M=94.20, SD=12.58) and further also marked the trend of decreasing scores at the post-test (M=50.56, SD=7.00).

Table 1.1: Outcome for the Variable of Anxiety score (Paired t values)

	Mean Difference	**Std. Error of Difference**	**Lower**	**Upper**	**T**	**df**	**Sig. (2 tailed)**
Pair 1	29.08	1.70	25.57	32.58	17.10	24	.001
Pair 2	43.64	2.77	37.91	49.36	15.73	24	.001
Pair 3	72.72	3.46	65.57	79.86	21.00	24	.001

Note: **Variable: Anxiety score**

Pair 1**-**Baseline and Middle

Pair 2**-** Middle and Post

Pair 3**-** Baseline and Post

The paired t-test outcomes obtained from the (Pair 1-baseline and middle) depicted in the Table No.1.1, demonstrated the marked mean difference of anxiety score reported to be 29.08[t (24) =17.10, p<.001] with a 99% confidence level ranging from 25.57 to 32.58. The findings obtained at (pair 2- middle and post) reported mean 43.64[t (24) =15.73, p<.001] with a 99% confidence level ranging from 37.91 to 49.36 .Finally if we compare pair 3 (baseline with post-test), the decreased mean difference of executive functions recorded to be 72.72which was highly considerable with a 99% confidence level ranging from 65.57to 79.86 [t(24)=21.00 and p<.001].

IV. DISCUSSION

This work suggests that MBCT is beneficial for students.. When the t value is significant, inference can be drawn from the result under the used data set. MBCT emerged as the new treatment approach for anxiety. This research has answered the curiosity above, that MBCT had a significant impact on reduction of anxiety. The empirical finding of the research is consistent with researchers Sears and Kraus (2009) that "MBCT helps in controlling stress and anxiety among students". These findings lend support to the growing evidence of beneficial effects of mindfulness based cognitive therapy in dealing with everyday life hassles and anxiety.

In addition, there are some researchers who find consistent result with this result. Mindfulness based cognitive therapy tends to bring significant relief from stiffed muscles and relieve from physical symptoms of anxiety (Marks, 2000). Similar results have been supported by findings of Sears and Kraus (2009) concluding that people high on mindfulness tend to score less on anxiety.

The present research results are in line with study done by Grossman, Niemann and Schmidt (2004) that mindfulness based cognitive therapy is helpful in dealing with distress.

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These results are in line with the results obtained by Sherratt (2013) that being aware for the present moment helps in reducing stress and anxiety among sudents.

Tanner, Travis and Gaylord- King et al., (2009) studied the impact of MBCT on 295 subjects and concluded that high mindfulness relates to low levels of neurotic traits and especially anxiety symptoms.

In addition, rural background subjects with high mindfulness experienced less anxiety as compared with other groups. Similar results for cancer patients were obtained by Giorgi and Bascioni (2009) they found that cancer patients have difficulty in accepting their illness and death and being non-judgmental towards future anxiety. Here also mindfulness based cognitive therapy proved its effectiveness in helping patients having anxiety due to diagnosis of cancer.

The second aim of the research is also answered as the empirical finding of this paper is logical and well supported by various studies because now MBCT is used all over the world with its application on various physical as well mental health problems across all cultures. Support comes from various studies as Kaplan (2010) found mindfulness based cognitive therapy equally effective among different religions. In their research, they investigated role of mindfulness in treatment of anxiety levels in different research groups. It was found that in different groups mindfulness helped in reducing anxiety.

Zeidan (2010) again reported a similar finding for emotional and heart related problems, this time using sham mindfulness meditation with an experimental and a control group.

Similarly, Baer(2003) found that mindfulness based cognitive therapy have relaxation and self-management as its by-products. Anxiety is related to increased arousal, muscle tone, and other physiological symptoms (Mogg & Bradley, 2005). It was also found that MBCT reduced anxiety for all severity groups.

Mindfulness based cognitive therapy can also be used as an adjunctive therapy mixed with other approaches for the treatment of depressive and anxiety symptoms. Promising examples supporting effectiveness of MBCT are for child population (Britton, Bootzin, Cousins, Hasler, Peck & Shapiro ,2013).

MBCT for “pregnant women with diagnosis of post- partum depression (Dunn, Hanieh, Roberts & Powrie, 2012); MBCT for hypochondrias (McManus, Surawy, Muse, Vazquez-Montes & Williams, 2012), acute pain syndrome (Rimes & Wingrove ,2013), phobia (Piet, Hougaard, Hecksher & Rosenberg,2010), and mindfulness based cognitive therapy for patients diagnosed with cancer (Sharplin, Jones, Hancock, Knott, Bowden & Whitford,2010)”.

Furthermore, MBCT has been shown to enhance positive and reduce negative emotional states (Schroevers & Brandsma ,2010), and to help in the achieving life goals (Crane, Winder, Hargus, Amarasinghe & Barnhofer ,2012).

V. CONCLUSION

Student age is the most critical period characterized by various physical and psychological changes. This transitory period results in a difference of opinion in attitudes and behaviour of students. These changes associated with the expected role and responsibilities are sometimes unwelcomed and result in various psychological issues and anxiety. It is also well documented that anxiety have physiological, social and psychological correlates.

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During the present research, it was found that perceived injustice, sense of worthlessness, guilt feelings, inferiority complex and unrealistic expectations of others were reported by students scoring high on anxiety. Mindfulness based interventions enhance relaxation; reduce arousal level by lowering the activity of the sympathetic nervous system. On the basis of the present research findings, it is concluded that components of mindfulness i.e. acceptance, letting go and patience leads to better self control and helps in reducing anxiety.

Similarly, carrier indecisiveness, academic pressure, placement issues, relationship problems, peer pressure and catastrophizing events were found to be responsible for anxiety among adolescents. It was found that mindfulness breaks the vicious cycle of anxiety as it enabled participants to be in present moment with a sense of awareness and non-judgemental attitude.

On the basis of the present research findings, it is strongly recommended that psychological help in terms of mindfulness based interventions should be an integral part of the education. Furthermore, if mindfulness based interventions are included at an early stage of academic curricula, it can enhance well-being of students.

However the research has some limitations 1) The research uses only one source to seek for data, it is from Indian students.2) This research only uses the STAI-2 diagnostic criteria to assess anxiety and there is no externality or other relevant explanatory variables involved in this research.3) This research does not provide the detail reason of covert effect of MBCT on brain that reduces the anxiety.

Future researches is suggested to collect more data about MBCT and anxiety from various sources so that more generalized outcomes can be documented. The measurement tools can be enhanced so that any kind of error is eliminated at the screening level. The next researcher is also expected to conduct a research for one specific disorder of anxiety using the result of this research as their hypothesis, this is important to know what factors make that domain like this empirical finding say and it can be conducted in the any other country.

REFERENCES

1. Aguado, J., Luciano, J. V., Cebolla, A., Serrano-Blanco, A., Soler, J., & García-Campayo, J. (2015). Bifactor analysis and construct validity of the five facet mindfulness questionnaire (FFMQ) in non-clinical Spanish samples. Frontiers in psychology, 6, 404.
2. Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. Assessment, 13(1), 27-45.
3. Barrett, P. M., Duffy, A. L., Dadds, M. R., & Rapee, R. M. (2001). Cognitive–behavioral treatment of anxiety disorders in children: Long-term (6-year) follow-up. Journal of consulting and clinical psychology, 69(1), 135.
4. Beitel, M., Ferrer, E., & Cecero, J. J. (2005). Psychological mindedness and awareness of self and others. Journal of Clinical Psychology, 61(6), 739-750.
5. Bögels, S. M., & van Melick, M. (2004). The relationship between child-report, parent self-report, and partner report of perceived parental rearing behaviors and anxiety in children and parents. Personality and Individual Differences, 37(8), 1583-1596.
6. Borkovec, T. D., & Costello, E. (1993). Efficacy of applied relaxation and cognitive-behavioral therapy in the treatment of generalized anxiety disorder. Journal of consulting and clinical psychology, 61(4), 611.

Received: 27 Feb 2019 | Revised: 20 Mar 2019 | Accepted: 30 Apr 2020

7. Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: mindfulness and its role in psychological well-being. Journal of personality and social psychology, 84(4), 822.
8. Cardaciotto, L., Herbert, J. D., Forman, E. M., Moitra, E., & Farrow, V. (2008). The assessment of present-moment awareness and acceptance: The Philadelphia Mindfulness Scale. Assessment, 15(2), 204-223.
9. Craigie, M. A., Rees, C. S., Marsh, A., & Nathan, P. (2008). Mindfulness-based cognitive therapy for generalized anxiety disorder: A preliminary evaluation. Behavioural and Cognitive Psychotherapy, 36(5), 553-568.
10. Crane, C., Winder, R., Hargus, E., Amarasinghe, M., & Barnhofer, T. (2012). Effects of mindfulness-based cognitive therapy on specificity of life goals. Cognitive therapy and research, 36(3), 182-189.
11. Dunn, C., Hanieh, E., Roberts, R., & Powrie, R. (2012). Mindful pregnancy and childbirth: effects of a mindfulness-based intervention on women's psychological distress and well-being in the perinatal period. Archives of women's mental health, 15(2), 139-143.
12. Emmons, R. A., & Mishra, A. (2011). Why gratitude enhances well-being: What we know, what we need to know. Designing positive psychology: Taking stock and moving forward, 248-262.
13. Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J. P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). Journal of psychopathology and Behavioral Assessment, 29(3), 177.
14. Franco, C., Amutio, A., López-González, L., Oriol, X., & Martínez-Taboada, C. (2016). Effect of a mindfulness training program on the impulsivity and aggression levels of adolescents with behavioral problems in the classroom. Frontiers in psychology, 7, 1385.
15. Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. American psychologist, 60(7), 678.
16. Giorgi, F., & Bascioni, R. (2009). Another infusion of hope. Journal of Clinical Oncology, 27(10), 1722-1723.
17. Greeson, J. M. (2009). Mindfulness research update: 2008. Complementary health practice review, 14(1), 10-18.
18. Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. Journal of psychosomatic research, 57(1), 35-43.
19. Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. Clinical psychology review, 37, 1-12.
20. Jaisa Sulit, B. P. H. E. (2018). NON-JUDGMENTAL ATTENTION: A UNIVERSAL BEST PRACTICE.
21. Kaplan, J. S. (2010). Urban Mindfulness: Cultivating Peace, Presence, and Purpose in the Middle of It All. New Harbinger Publications.
22. Kellner, M. H., Bry, B. H., & Colletti, L. A. (2002). Teaching anger management skills to students with severe emotional or behavioral disorders. Behavioral Disorders, 27(4), 400-407.
23. Kendall, P. C. (1994). Treating anxiety disorders in children: results of a randomized clinical trial. Journal of consulting and clinical psychology, 62(1), 100.
24. Marchand, W. R. (2012). Mindfulness-based stress reduction, mindfulness-based cognitive therapy, and Zen meditation for depression, anxiety, pain, and psychological distress. Journal of Psychiatric Practice®, 18(4), 233-252.

Received: 27 Feb 2019 | Revised: 20 Mar 2019 | Accepted: 30 Apr 2020

25. McManus, F., Surawy, C., Muse, K., Vazquez-Montes, M., & Williams, J. M. G. (2012). A randomized clinical trial of mindfulness-based cognitive therapy versus unrestricted services for health anxiety (hypochondriasis). Journal of consulting and clinical psychology, 80(5), 817.
26. Mogg, K., & Bradley, B. P. (2005). Attentional bias in generalized anxiety disorder versus depressive disorder. Cognitive therapy and research, 29(1), 29-45.
27. Piet, J., Hougaard, E., Hecksher, M. S., & Rosenberg, N. K. (2010). A randomized pilot study of mindfulness-based cognitive therapy and group cognitive-behavioral therapy for young adults with social phobia. Scandinavian Journal of Psychology, 51(5), 403-410.
28. Rimes, K. A., & Wingrove, J. (2013). Mindfulness-based cognitive therapy for people with chronic fatigue syndrome still experiencing excessive fatigue after cognitive behaviour therapy: a pilot randomized study. Clinical psychology & psychotherapy, 20(2), 107-117.
29. Roemer, L., Salters, K., Raffa, S. D., & Orsillo, S. M. (2005). Fear and avoidance of internal experiences in GAD: Preliminary tests of a conceptual model. Cognitive Therapy and Research, 29(1), 71-88.
30. Sears, S., & Kraus, S. (2009). I think therefore I om: Cognitive distortions and coping style as mediators for the effects of mindfulness meditation on anxiety, positive and negative affect, and hope. Journal of clinical psychology, 65(6), 561-573.
31. Schroevers, M. J., & Brandsma, R. (2010). Is learning mindfulness associated with improved affect after mindfulness-based cognitive therapy?. British Journal of Psychology, 101(1), 95-107.
32. Segal, Z. V., Teasdale, J. D., Williams, J. M., & Gemar, M. C. (2002). The mindfulness-based cognitive therapy adherence scale: Inter-rater reliability, adherence to protocol and treatment distinctiveness. Clinical Psychology & Psychotherapy, 9(2), 131-138.
33. Sharma, M. P., Mao, A., & Sudhir, P. M. (2012). Mindfulness-based cognitive behavior therapy in patients with anxiety disorders: A case series. Indian journal of psychological medicine, 34(3), 263.
34. Sharplin, G. R., Jones, S. B., Hancock, B., Knott, V. E., Bowden, J. A., & Whitford, H. S. (2010). Mindfulness-based cognitive therapy: an efficacious community-based group intervention for depression and anxiety in a sample of cancer patients. Medical journal of Australia, 193, S79-S82.
35. Sherratt, K. A. L., & Lunn, S. (2013). Evaluation of a group programme of mindfulness-based cognitive therapy for women with fertility problems. Journal of Obstetrics and Gynaecology, 33(5), 499-501.
36. Spielberger, C. D., Gonzalez-Reigosa, F. E. R. N. A. N. D. O., Martinez-Urrutia, A. N. G. E. L., Natalicio, L., & Natalicio, D. S. (1971). Development of the Spanish edition of the state-trait anxiety inventory. Interamerican Journal of psychology, 5(3-4), 145-158.
37. Travis, F., Haaga, D. A., Hagelin, J., Tanner, M., Nidich, S., Gaylord-King, C., ... & Schneider, R. H. (2009). Effects of Transcendental Meditation practice on brain functioning and stress reactivity in college students. International Journal of Psychophysiology, 71(2), 170-176.
38. Vujanovic, A. A., Bonn-Miller, M. O., Bernstein, A., McKee, L. G., & Zvolensky, M. J. (2010). Incremental validity of mindfulness skills in relation to emotional dysregulation among a young adult community sample. Cognitive Behaviour Therapy, 39(3), 203-213.
39. Walach, H., Buchheld, N., Buttenmüller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—the Freiburg mindfulness inventory (FMI). Personality and individual differences, 40(8), 1543-1555.

Received: 27 Feb 2019 | Revised: 20 Mar 2019 | Accepted: 30 Apr 2020

40. Zeidan, F., Johnson, S. K., Diamond, B. J., David, Z., & Goolkasian, P. (2010). Mindfulness meditation improves cognition: Evidence of brief mental training. Consciousness and cognition, 19(2), 597-605.

Received: 27 Feb 2019 | Revised: 20 Mar 2019 | Accepted: 30 Apr 2020