

EFFECT OF MINDFULNESS BASED COGNITIVE THERAPY ON EMOTIONAL WELL-BEING AMONG YOUNG ADULTS

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ABSTRACT

Nothing is constant except time in this world so as the breath. Emotions which linger on inside of us with cognitions and memories are placed in a constant mode. We forget to accept the fact that just like breathe the emotion which we linger on to is also temporary. Emotions play a vital role throughout life in various shifts of a human in terms of age and career. Young adults now a days face challenges in terms of monitoring and regulating emotions within them especially when they foresee the world around them being realistic especially in terms of relations. Memories, cognitions and related emotions many a times lead to being stuck on to event, and cling on to emotions. If individual face difficulties in regulating emotions than the reaction towards these events could be denial, guilt, loneliness etc, which leads to distress and psychopathology in the longer run. Dealing with such deep feelings becomes a challenge and important goal. Being attentive and aware of deeper feelings associated with thoughts and learning how to manage them

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without getting tangled in them is inferred by mindfulness. This technique can help an individual to step out of the habitual mind and overwhelming emotions and not to get tangled and carried away to the fall of distress.

The present study was to investigate the effect of mindfulness based cognitive therapy on emotional well-being among young adults. A pre-post experimental design was utilized on a sample of 16 individuals who were also screened out for psychopathology. Wilcoxon signed rank test was applied to analyze the results obtained prior and after the intervention since the sample size consisted of only 16 participants. The findings of the study showed tremendous amount of change mindfulness attributes and decrement in Difficulties in emotion regulation in the findings were the significant difference was registered at .01 and .05 level. Majority of participants had significant differences after the intervention. The finding of the study affirms that the mindfulness intervention is effective and brings shifts in the regulation of emotions. The intervention decreased difficulties in emotion regulation depicting better emotional well-being.

Keywords: Mindfulness based cognitive therapy (MBCT), Emotional Well-being, Difficulties in emotion regulation, Young Adults.

1. EMOTIONAL WELLBEING

Emotions can be defined as experiences with physiological and subjective component selected in for survival. People experience a wide range emotions and mood, which are basically expressed in forms of positive and negative attitudes. These attitudes, emotions are heavily influenced by the way emotions are regulated. The ability to identify, label, experience, express emotions is emotion regulation. These have important implication for individual and interpersonal functioning. Since emotions are experienced-

behaviorally, physiologically and experientially the emotion regulation becomes strategy that alters these processes of emotions (Bryant, 2015).

The way we express and feel plays vital role for our psychosocial and physical well-being i.e., promotes good physical and mental health, facilitate interpersonal interactions etc.

Thus, how well people regulate their emotions is tied to emotional wellbeing. Emotional wellbeing is relatively stable overtime an increase in emotional well-being increases over all well-being of an individual.

Emotional wellbeing (EW) is a wide term. Emotional wellbeing can be defined as the degree people report that they feel happy and or experience being free of worry or satisfaction in their lives, together with both extent and experience of clinically measured mental disorders (Baumgardner and Crother, 2009). The WHO reference to a “state of wellbeing” is reflected in measurement of emotional wellbeing (Keyes, 2013). It plays a vital role to the present quality of an individual’s lives and affects their experience and enjoyment of life and health, nevertheless it also has important implications for the future (Cusworth, 2009; Barker,2013). Emotional wellbeing can *operationally* be defined as a positive sense of wellbeing, regulating emotions well which enables an individual to be able to function in society and meet demands of everyday life.

Emotional wellbeing may be thought as a composite of positive affect and negative affect along with the way how an individual regulates his/her emotions. These momentary states accumulate over time, and turn into a central characteristic level of emotional well-being (Eid and Larsen, 2008). Emotional wellbeing basically includes Mental, Cognitive, affective and psychological component (Cusworth, 2009).

2. MINDFULNESS BASED COGNITIVE THERAPY

Mindfulness interventions are currently investigated on different

sample along with different constructs. Among various intervention Mindfulness based cognitive therapy (MBCT) is most widely in use. MBCT aims at enhancing the ability to step out of the negative thinking process (which leads to depressive symptoms, loneliness, dissatisfaction of life, also anxiety) and diminish the clingingness toward any negative thought or painful memories.

It focuses on observing oneself inside and out. It is a high level state of awareness, a state of consciousness about oneself and what is going on at present. This awareness not only involves monitoring of external environment but also internal environment. According to Kabat-Zinn in 1994 defined mindfulness as “paying attention to oneself and the surrounding in a particular way, that is on purpose, in the present moment and non judgmentally experience the moment” (Bentley, 2007).

Mindfulness-Based Cognitive Therapy developed by Teasdale, Segal, and Williams (1995), this therapy was created to help preventing relapse of major depressive episodes (Segal, Williams and Teasdale, 2012). The base of this therapy is information-processing theory of depressive relapse which suggests that individuals who have experienced major depressive episodes are vulnerable to recurrences/ relapses to mild dysphoric states when encountered, since these states might reactivate the negative thoughts and depressive thinking patterns present during the previous episode, or episodes, and may promote in precipitating a new episode.

Mindfulness-based cognitive therapy (MBCT) is a manualized, Eight week group intervention (Segal, Williams, & Teasdale, 2012) based largely on Kabat-Zinn’s (1990) MBSR program. It incorporates elements of Beck’s cognitive therapy that facilitate a detached or decentered view of one’s thoughts, including statements such as “thoughts are not facts” and “I am not my thoughts”, watching the thoughts as mental events. The techniques and decentered approach is applied to body sensations and emotions experienced.

MBCT is designed to help people who suffer repeated sessions of depression and chronic unhappiness. It combines the ideas of cognitive therapy with meditative practices and attitudes based on the cultivation of mindfulness. It developed on the basis of Interacting Cognitive subsystem (ICS) theory, by Bernard and Teasdale; ICS envision cognition as a network of subsystems each having its own memory and code (Segal, Williams and Teasdale in 2002).

It explains that mind consists of multiple modes which are responsible for receiving and processing of every cognition and emotion. The 2 main modes are being and doing. Being mode comprises of accepting and allowing what is coming in or towards self, were as doing mode comprising of a goal oriented state, where conflict occurs between how things are and how mind wishes things to be. Distress is caused when either of the modes blocked and person relies on just one mode. Thus, if the individual is able to move freely in between these modes the person will gain better mental health (Mayne and Bonanno, 2001).

3. REVIEW OF LITERATURE

Emotional health is as important as mental and physical health, in fact most important. We are surrounded by emotional events so much that every moment we are struggling with numerous stuck up feelings with are caught and tangled with thoughts as well. In a longer run these creates distress and the initial signs are of mood fluctuations and frustration. In today's hectic world where individuals keep trying to multi-task and improve more and more they struggle deep down with these emotional issues, conflicts causing distress.

It has been studied via researches that mindfulness meditation (a mindfulness intervention), induces fundamental changes in the life events experienced and dealt with by individuals and it also alters the personality of an individual. Bring changes in the perception towards self and others around Van Den Hurk et al.,

(2011), conducted such study to explore mindfulness meditation intervention relationship and to investigate its mediating role in mindfulness skills. For this study thirty-five (age ranging from 31-75 years) experienced mindfulness mediators were interviewed and assessed, who had a meditation experience of 25-35 years and thirty five individuals (age range from 27-63years) without any meditation experience were taken in. The study was conducted to compare the meditators and non-meditators on mindfulness skills. The findings of the study indicated that continuous practice of mindfulness meditation leads to openness to experience and increase extroversion traits. The results also showed that it reduces neuroticism as measured by NEO PI. Concluding the outcomes of the study, it was suggested by the researchers that the practice of mindfulness meditation leads to higher levels of receptivity, and have a mind of curiosity towards new experiences and indulge and experience more of positive emotions. The findings also stated that mindfulness meditation as well as a trait it reduces the proneness of symptoms of anxiety or depression.

Mindfulness has also been studied in the areas of memory, attention, emotions, dysfunctional thoughts and pathological areas covering depression on a large scale, ADHD, addictive people, professionals (including psychologists) dealing with daily stress.

Dispositional mindfulness has been associated with higher levels of life satisfaction (Brown and Ryan, 2003), agreeableness, Conscientiousness, Sense of autonomy, competence, empathy, optimism (Brown and Ryan, 2003). There were negative correlation found between mindfulness and depression, neuroticism (Grossman, Niemann, Schmidt, Walach, 2004), absentmindedness, Rumination, Cognitive reactivity, difficulties in emotional regulation, social anxiety (Chadwick et al., 2008; Baer et al., 2008).

Brown and colleagues (2003) found that trait measures of mindfulness are correlated with a variety of cognitive and affective

indicators of mental health, including lower levels of emotional disturbance (e.g., depressive symptoms, anxiety, and stress) and higher levels of well-being (e.g., vitality, positive affect, satisfaction with life).

Mindfulness has been found successful in enhancing general well-being (e.g., Brown & Ryan, 2003). Specifically, studies show that it is related to neuroplasticity (Davidson et al., 2003); neural integration (Siegel, 2007); increased capacity to regulate emotions, improve negative thinking, and enrich interpersonal relationships (Siegel, 2007); enhanced bodily functioning, such as healing, immune response, physical well-being, mental clarity and reduction of body tension (Davidson et al., 2003).

Hargus et al., (2010), studied effect of MBCT on a group of 27 depressed patients with the history of suicidal ideation and behavior. It resulted in reduced depression severity, increased meta-awareness of and specificity of memory related to previous suicidal crisis.

Son et al., (2013), examined a randomized controlled trial study on 139 outpatients with (Type-1 and Type-2) Diabetes and low level of emotional well-being with an age range of 40-55. The results depicted decline in emotion related distress and increases in quality of life domains in patients suffering with diabetes and had poor emotional well-being, this improvement was noticed upon the implementation of the intervention.

Methodology

Aim of the study: The aim of this research is to study the effect of mindfulness based cognitive therapy on emotional wellbeing among young adults.

Objective of the study: The objective of the study is to assess the effectiveness of mindfulness based cognitive therapy on emotional well being among young adults

Hypothesis: Mindfulness intervention will be proven effective

towards overcoming difficulties in emotion regulation and enhance emotional wellbeing

Research Design and Sample:

Experimental design is implemented in this research aiming to investigate the effectiveness of the mindfulness based cognitive therapy on emotional wellbeing among young adults who had difficulties in regulation of emotion. For this study young adults (college students) in between the age of 18-25 were taken into consideration from Greater Noida region. Individuals were interviewed on having any past psychiatric illness history/physical injury which might affect the therapy session later. Participants with such history were excluded from the study.

Simple random sample was used for the selection of sample and a total of 25 individuals were included in the study who had difficulties with regulation of emotion.

Measures

The Difficulties in Emotion Regulation Scale (DERS)

DERS is developed by Gratz & Roemer, (2004), it is a 36-item self-report measure of difficulties with various dimensions of emotion regulation. This scale is a 5 point likert scale, and some items have reversed scoring. That is if 1 has a score of 5 than in reversed scoring the 5 will be score as 1. The scale provides a total score, used in these studies as an indicator of broad difficulties in emotion regulation. Items assess lack of acceptance of emotions, inability to engage in goal-directed behavior when distressed, impulse control difficulties, limited access to strategies for effective regulation, lack of awareness of, and lack of clarity of emotions. The test has an internal consistency of .93, test-retest reliability of .88. Higher scores indicate greater difficulties in emotion regulation

Mindfulness: Five facets of mindfulness (FFMQ)

The FFMQ (Baer et al., 2006) consists of 39 items that are rated

on a 5-point Likert-type scale (1 = never or very rarely true, 5 = very often or always true). Five facets are scored: Observing, Describing, and Acting with awareness, Non judgment, and Non reactivity. All of the five facets showed adequate to good internal consistency, with alpha values at .75 for Non reactivity, .83 for Observing, .87 for Act aware, .91 for Describing, and .87 for Non judging (Baer et al., 2006).

Procedure

Individuals included in this study were interviewed, their demographic details were obtained on the basis of inclusion criteria participants were taken in study and were assessed on DERS scale. The participants who scored and reported high level of difficulties in regulation of emotion were included for the study and were provided with mindfulness based cognitive therapy (eight week program, session conducted once in a week with a duration of 2 -2 1/2 hours).

The slot of participants for intervention consisted of 8-12 participants. The study aimed not to exceed participants in one group more than 12 at a time.

The group received the intervention for 9 weeks. During mindfulness, participants were taught to observe the present moment, to notice and let go of thoughts and emotions as they arise, and reframe the judgments in non judgmental manner as well as in non reactive way. The whole intervention step by step focused on cognitions and emotion regulation throughout with different meditation practices both formal and informal. The intervention for the groups consisted of sharing of experiences and homework for 20-30 minutes and rest practices of the respective session. The individuals were given handouts for each session after completion of each session to brief out and summarize the session held and homework related to it. Audios for informal practices were distributed through Bluetooth, and Google drive shared links.

Results

The aim of the study was to illustrate effect of MBCT on emotional wellbeing of the young adults. Statistical analysis was performed with regard to the nature of the data and the assumptions required to be met for each analysis. The findings of the study were analyzed by applying descriptive statistics of mean and standard deviation, further Wilcoxon signed rank test (before and after intervention) was conducted since the sample selected for the study had drop out and the sample remained for study consisted of 16 participants. Thus, taking the sample size in consideration non parametric analysis was conducted for further findings of the study.

4. DESCRIPTIVE STATISTICS OF DIFFICULTIES IN EMOTION REGULATION (PRIOR AND AFTER INTERVENTION)

Descriptive statistics gives a glimpse of the mean and standard deviations obtained on DERS scale (Prior and after intervention showed in Table a and Table b).

Table 1. is showing that the minimum score obtained in the whole DERS scale (prior intervention) was 81 and the highest score obtained was 119 with a mean score of 103.06 with the standard deviation of 12.019.

The minimum score obtained on over all FFMQ scale was 62 and maximum score obtained was 134 with a mean score of 85 and standard deviation of 20.762.

Table 1.

Pre DERS	Mean	Std. Deviation	Minimum	Maximum
ERNONAC	15.94	4.328	10	25
ERGOALS	16.50	3.204	12	22
ERIMPULSE	17.81	3.311	12	24
ERAWARENESS	19.63	3.914	11	28
ERSTRATEGIES	18.69	4.686	13	28
ERCLARITY	14.50	4.305	7	26
TOTALDERS	103.06	12.019	81	119

MFOBSERVE	19.38	5.572	10	28
MFDESCIBE	16.63	5.071	10	28
MFACTWDAWARE- NESS	17.81	6.134	11	34
MFNONJUDGE	16.81	5.504	10	32
MFNONREACT	14.38	3.202	10	22
TOTALFFMQ	85.00	20.762	62	134

Table 2. is showing that the minimum score obtained in the whole DERS scale (after intervention) was 51 and the highest score obtained was 86 with a mean score of the 65.81 and standard deviation 10.068.

The minimum score obtained on over all FFMQ scale was 101 and maximum score obtained was 168 with a mean score of 135.88 and standard deviation of 19.152.

Table 2.

Pre DERS	Mean	Std. Devi- ation	Mini- mum	Maxi- mum
POSTERNONAC	9.94	3.276	6	18
POSTEROALS	9.38	3.575	5	19
POSTIMPULSE	10.31	2.845	6	17
POSTAWARENESS	15.38	4.674	8	26
POSTSTRATEGIES	12.25	3.357	8	19
POSTCLARITY	8.81	2.903	5	15
POSTTOTALDERS	65.81	10.068	51	86
POSTMFOBSERVE	26.50	6.261	18	36
POSTMFDESCRIBE	29.13	5.303	20	40
POSTMFACTWITH- AWARENESS	29.75	5.209	23	41
POSTMFNONJUDGE	27.56	6.782	18	38
POSTNONREACT	22.94	4.683	15	32
POSTTOTALFFMQ	135.88	19.152	101	168

Table 3. Analysis and results of the group

All participants (N=16) relatively had difficulties with regulation

of emotion (indicating poor emotional wellbeing). The participants were provided MBCT intervention to deal with the difficulties they had in expressing, clarity and awareness of emotions which was causing them emotional distress.

The group had baseline assessment and consent forms were signed, and intervention was provided to each individual in groups (slots were made, and intervention was provided once in a week for 2 – 2 1/2 week). After intervention program (8 weeks) the individuals were assessed again to foresee the differences in difficulties of regulation of emotion as well as level of mindfulness. The data was analyzed with the help of Wilcoxon signed rank test (Non parametric test since the sample size was 16 of the sample size, the assumptions of the test were met prior and test was conducted further interpreted.

Table 3. 1. **Ranks**

		N	Mean Rank	Sum of Ranks
POSTERNON- AC - ERNONAC	Negative Ranks	14 ^a	8.46	118.50
	Positive Ranks	1 ^b	1.50	1.50
	Ties	1 ^c		
POSTEROALS - ERGOALS	Negative Ranks	14 ^d	7.50	105.00
	Positive Ranks	0 ^e	.00	.00
	Ties	2 ^f		
POSTIMPULSE - ERIMPULSE	Negative Ranks	13 ^g	8.00	104.00
	Positive Ranks	1 ^h	1.00	1.00
	Ties	2 ⁱ		
POSTAWARE- NESS - ERAWARENESS	Negative Ranks	14 ^j	7.50	105.00
	Positive Ranks	1 ^k	15.00	15.00
	Ties	1 ^l		
POSTSTRAT- EGIES - ER- STRATEGIES	Negative Ranks	12 ^m	8.08	97.00
	Positive Ranks	2 ⁿ	4.00	8.00
	Ties	2 ^o		

POSTCLARITY - ERCLARITY	Negative Ranks	14 ^p	7.50	105.00
	Positive Ranks	0 ^q	.00	.00
	Ties	2 ^r		
P O S T T O T - ALDERS - TOT- ALDERS	Negative Ranks	15 ^s	8.00	120.00
	Positive Ranks	0 ^t	.00	.00
	Ties	1 ^u		

Table 3.2. **Wilcoxon Sign Rank Test of difficulties in emotional regulation conducted on experimental group**

Test Statistics^a

	POSTER- NONAC - ERNONAC	POS- TEROALS -ERGOALS	POSTIM- PULSE -ERIM- PULSE	POST- AWARE- NESS - ERAWARE- NESS	POST- STRAT- EGIES -ERSTRAT- EGIES	POST- CLARITY -ER- CLARITY	POSTO- TALDERS -TOT- ALDERS
Z	-3.329 ^b	-3.299 ^b	-3.239 ^b	-2.564 ^b	-2.797 ^b	-3.304 ^b	-3.409 ^b
Asymp. Sig. (2-tailed)	.001	.001	.001	.010	.005	.001	.001

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

The analyzed data show that there was significant difference noted in pre and post test on difficulties in regulation of emotion. All showed significant difference at the level of .01 except awareness and strategies subscale which was statistically significant but at .05level.

For almost all scale majority of participants showed significant differences as seen in negative ranks value showing the number individuals had significant changes after post test. The total DERS score was foreseen as less after the intervention for majority of participants (15 out of 16) as depicted in the table 3. 1.

Table 3.3. **Ranks**

	N	Mean Rank	Sum of Ranks

POSTMFOBSERVE - MFOBSERVE	Negative Ranks	2 ^a	1.50	3.00
	Positive Ranks	11 ^b	8.00	88.00
	Ties	3 ^c		
	Total	16		
POSTMFDESCRIBE - MFDESCRIBE	Negative Ranks	0 ^d	.00	.00
	Positive Ranks	14 ^e	7.50	105.00
	Ties	2 ^f		
	Total	16		
POSTMFACTWITH-AWARENESS - MFACTWDAWARENESS	Negative Ranks	0 ^g	.00	.00
	Positive Ranks	14 ^h	7.50	105.00
	Ties	2 ⁱ		
	Total	16		
POSTMFNON-JUDGE - MFNON-JUDGE	Negative Ranks	1 ^j	3.00	3.00
	Positive Ranks	13 ^k	7.85	102.00
	Ties	2 ^l		
	Total	16		
POSTNONREACT - MFNONREACT	Negative Ranks	0 ^m	.00	.00
	Positive Ranks	13 ⁿ	7.00	91.00
	Ties	3 ^o		
	Total	16		
POSTTOTALFFMQ - TOTALFFMQ	Negative Ranks	0 ^p	.00	.00
	Positive Ranks	14 ^q	7.50	105.00
	Ties	2 ^r		
	Total	16		

Table 3.4. **Test Statistics^a**

	POSTM-FOBSERVE - MFOBSERVE	POSTMF-DESCRIBE - MFDESCRIBE	POSTM-FACTWITH-AWARENESS - MFACTWDAWARENESS	POSTM-FNON-JUDGE - MFNON-JUDGE	POSTNONREACT - MFNONREACT	POSTTOTALFFMQ - TOTALFFMQ
Z	-2.972 ^b	-3.298 ^b	-3.306 ^b	-3.109 ^b	-3.187 ^b	-3.297 ^b
Asymp. Sig. (2-tailed)	.003	.001	.001	.002	.001	.001

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

The analyzed data show that there was significant difference noted in pre and post test on mindfulness and its subscales. All

showed significant difference at the level of .01 except observe scale and non judgment scale which was statistically significant but at .05 level. For almost all scale majority of participants showed significant differences as seen in negative ranks value showing the number individuals had significant changes after post test. The total Mindfulness score was foreseen as high after the intervention for majority of participants (14 out of 16) as depicted in the table 3.3.

5. DISCUSSION

In the present study it was hypothesized that the mindfulness therapy will be proven effective on emotional well-being (measured by difficulties in emotion regulation) among young adults.

It has been proven in the current research that mindfulness therapy had the potential to regulate, sustain and orient emotion in better way, better dealing. With formal and informal practices mindfulness therapy activates the attentional network and thus focuses on difference aspects of attention, regulation such as switching, orienting, alert and sustaining attention. The mindfulness therapy orients participant to observe the attention and assist the attention gently back into the present moment (breath or any body part that was focused in that moment). The regular and continuous practice of keeping track on attention and awareness strengthen the neural pathways. Researchers have stated that mindfulness/ meditation training can be considered as a cognitive control exercise that enhances the ability to self regulates one's internal distractions (Goleman, Boyatzis and Mckee, 2002). Mindfulness meditation also improves self control through better emotion regulation which enacts through plastic changes of mental and brain functions related to attention regulation, body awareness and emotion regulation and perspectives of self (Holzel et al., 2011; Tang, Posner, Rothbart and Volkow, 2015).

Researchers state that the psychological mechanism of emotion

regulation involved in mindfulness basically includes a change in acceptance, attention regulation, ethical practice and attachment or aversion understanding to feelings which lead to decreased rumination a mental proliferation (Grabovac et al, 2011).

Neuro-cognitive models states that mindfulness leads to changes in self processing, through the development of self awareness (meta awareness), self transcendence (prosocial characteristics), self regulation (modulation of behavior). The changes in these areas reflect modulation in neuro-cognitive networks related to intention and motivation, attention and emotion regulation, non attachment and decentering (Vago and Silbersweig, 2012).

The results of the present study showed significant changes in the regulation of emotion of young adults as well as increment in positive affect throughout session leading to better emotional well-being. The results indicated the effectiveness of mindfulness program reduces difficulties in observing and accepting the negative emotion, have clarity in thought and emotions expressing and labeling as well as changes in perception towards self, others

6. LIMITATIONS AND FURTHER DIRECTIONS FOR FUTURE RESEARCH

The sample size was very less thus the standardization of the study is limited as well as no gender difference was investigated along with no such parameter was taken in consideration if the individuals prior have any experience of meditation. It is essential to carry informal practices since homework is an important factor not completing it and not practicing may not lead to any major changes in well being spectrum. Thus, further direction for future research could be increasing the sample size and exploring the gender differences since females have a habit of expressing more emotions than males which releases the emotional tension (this might provide insight on effectiveness and working of mindfulness in inner psyche as well). The therapy is experiential in nature clinical usefulness is best to

be implemented. Thus, a detailed qualitative data may enquire and provide deeper insights in working mechanism of this therapy.

8. CONCLUSION

MBCT program is an effective intervention which untangles the deep knots in inner psyche filled with conflicts and deep rooted distress especially emotional distress. Participants demonstrated significant changes after the intervention. They had fewer difficulties in regulation of emotions after the intervention. The habitual patterns were foreseen to be shifting slowly and creating space of compassion for self and others. The therapy is effective however, the practices need to be carried out regularly for more effectiveness.

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