

How to Cite:

Priyanka, P., Punia, V., Singh, R., & Sindhu, B. (2022). Effectiveness of cognitive behaviour therapy in combination with savoring in moderate depression. *International Journal of Health Sciences*, 6(S1), 6348–6363. <https://doi.org/10.53730/ijhs.v6nS1.6352>

Effectiveness of cognitive behaviour therapy in combination with savoring in moderate depression

Priyanka

Ph.D in Psychology, Consultant Clinical Psychologist, Juvenile Justice Board, Delhi

Email: pinks.psyc@gmail.com

Vikas Punia

Ph.D Clinical Psychology, Assistant Professor, Department of Clinical Psychology, Shree Guru Gobind Singh Tricentenary University, Gurugram

Email: vikas85punia@gmail.com

Rajbir Singh

Professor of Psychology, Department of Clinical Psychology, Shree Guru Gobind Singh Tricentenary University, Gurugram

Corresponding author email: rajbirsinghmdu@gmail.com

Brahmdeep Sindhu

M.D. Psychiatry, Civil Surgeon, Palwal

Email: bdsindhu@gmail.com

Abstract--Cognitive behavioural therapy (CBT) is one of the most reliable and proven treatment for patients with various psychological disorders. A significant number of researches revealed that CBT with antidepressants showed significant lower number of relapse than the pharmacotherapy group. However, despite the significant role of efficacy of CBT for depression, its role in order to prevent relapse is not clear. On the other hand, positive psychological intervention has also been instrumental to enhance well-being but there is scarcity of scientific literature regarding the treatment of clinical depression. Therefore, there is a strong need for the development of a combo package of CBT and Positive psychological interventions for the treatment of depression. Keeping this into view, the aim of the present study is to explore the effectiveness of cognitive behaviour therapy in combination with savoring in moderate depression. Methodology: For this purpose, a 4X6 factorial design was made. Here four types of therapies were given to patients with moderate depression like pharmacotherapy, CBT, Composite savoring index and combo package of CBT and Composite savoring index. All these four groups were

tested under six phases. A total number of 120 patients with depression were distributed randomly among these four groups and assessed on BDI-II and Savoring belief inventory. Results: The results of the present study revealed that CBT, CSI and CPI along with PT is more effective to reduce the depression than alone PT only. On the other hand, CBT and combo package of CBT and CSI along with PT (Relapse rate after one year and six months post intervention is 16.67%) was found to be effective treatment with a smaller number of relapses for the depression as compared to CSI alone (Relapse rate of Mild depression: 43.3%) and Pharmacotherapy alone (Relapse rate of Mild depression: 10%; Moderate depression 36.67%) to treat the depression as well as to prevent the relapse. Conclusion: On the basis of the findings of the present study, it can be concluded that CSI and Combo package of interventions are equally effective as CBT to treat depression but CSI is having higher relapse rate as compare to CBT and Combo package of interventions.

Keywords---Cognitive behaviour therapy, Composite savoring index, Combo package of CBT and CSI, Moderate Depression and Positive Psychology Intervention.

Introduction

Depression is the most commonly occurring disorder among psychiatric outpatient department (45%)¹ with prevalence rate of 30 to 40 % in India.²⁻³ Depression is most debilitating in nature and leading cause of disability⁴⁻⁵ as its course is chronic in nature. Due to its chronicity it not only affects the well-being of the patients but mental health of whole family. First line of treatment for patients with depression is antidepressants either individually or in combination with psychotherapy. However only pharmacotherapy is not as efficacious individually as it is found to be efficacious in combination with any form of psychotherapy.⁶⁻⁷

Cognitive behavioural therapy (CBT) is one of the most reliable and proven treatment for patients with various psychological disorders. Various research findings converge that it is first line of treatment for depressive patients.⁸⁻⁹ The basic assumption behind the efficacy of CBT is that it works on maladaptive thoughts, emotions and behaviour.¹⁰ However, a significant number of researches revealed that CBT with antidepressants showed significant lower number of relapse than the pharmacotherapy group.¹¹⁻¹² One of the landmark study the Cambridge New-Castle study which has shown that the relapse rate is significantly lower in CBT group than control group after 12 months follow up.¹³ However, despite the significant role of efficacy of CBT for depression, its role in order to prevent relapse is not clear. One of the reason for that there is not as such any advancement in the skills used for the treatment of depression. Therefore, there is a strong need for the development of a combo package of CBT and Positive psychological interventions for the treatment of depression.

Positive psychology interventions for depression

Positive psychology interventions are found to be related with the concept of resilience and positive cognition which are complimentary to the previously described cognitive theories of depression. The concept of positive psychology was given by Seligman and Csikszentmihalyi (2000)¹⁴ which is different from the traditional psychology literature because the traditional psychology works on the coping and negativity instead of positive constructs like hope, optimism and joy etc. After the origination of the concept of positive psychology, this became the leading perspective of psychology.¹⁵ Though they affect each other, the presence of positive cognition is not equal to absence of negative cognition. Positive psychology offers another viewpoint to explore mental disorder, such as depression.

Consequently, if researchers have to discuss about the efficacy of positive psychology intervention it emerges from the literature that majority of studies have been conducted upon non clinical samples¹⁶, to prevent the further episodes¹⁷⁻¹⁸ and for the treatment of residual symptoms.¹⁹ Though positive psychological intervention has been instrumental to enhance well-being but there is scarcity of scientific literature regarding the treatment of clinical depression.

Role of savouring in depression

The word “Savoring” was first purposed by Bryant (1989).²⁰ Bryant and Veroff (1984)²¹, worked on subjective mental health. One can conceptualize savoring intervention as If people do the self-evaluation of their capability to deal with undesirable experiences in their lives, then they should also do the self-evaluation of their capability to appreciate and enjoy positive practises. So, they concluded that Savoring is the missing procedure which is the coping’s positive counterpart.

The most widely acknowledged definition of savoring by Bryan and Veroff is “as going beyond the experience to pleasure to encompass a higher order awareness or reflective discernment on the part of the individual”. Savoring is “a perceived ability to savour positive outcomes”. There are three major components of savoring; savoring through anticipation, savoring through reminiscing and finally the savoring the moment.²² When the person is able to enjoy the occurrence of positive emotions in future is labelled savoring through anticipation. Whereas tendency to appreciate the positive emotions that happened in the past is labelled as savoring through reminiscing. And finally, when positive emotions are attached with positive events are labelled as savoring the present moment. So overall, savoring is a composite index of all three components and found to be associate with positive emotions.²³ There are various methods such as behavioural, interpersonal and cognitive through which individual can savour the moment ²² for instance expressing positive emotions through laughing or smiling, expression of positive state of mind and reminding oneself of the impermanence of a positive moment and relishing it while it lasts. These different perspectives are found to help an individual to develop positive perspectives towards life.²⁴ Findings from the literature also revealed that savoring interventions specifically savoring the moment is helpful to lower down the subjective depression in non-clinically depressive students²⁵, improve anhedonia and depression in clinically depressive

patients²⁶ and is helpful in inducing positive emotions.²⁷ However, there is dearth of literature regarding the effectiveness of composite savoring intervention and combo package of CBT and savoring interventions for the treatment of patients with depression.

Keeping this into view, the aim of the present study was to explore the effectiveness of cognitive behaviour therapy in combination with savoring in moderate depression. For this purpose, the objective of the present study was to study the effectiveness of Cognitive Behaviour therapy, Composite Savoring Intervention and Combo package of CBT and Composite Savoring Intervention in Moderate Depression. More specifically, similar to previous researches, it was hypothesized that Cognitive Behaviour Therapy along with Savoring would be more effective than individual cognitive behaviour therapy, Composite Savoring Intervention and Combo package of CBT and Composite Savoring Intervention. Secondly, there would be significant reduction in depression, as the therapies (CBT, Savoring, Combo intervention of CBT and Savoring and Pharmacotherapy) would progress through different phases.

Methodology

In the present study, A 4X6 factorial design was made. Here four types of therapies were given to patients with moderate depression. A total number of 120 patients with depression were distributed randomly among these four groups. Group I consist of 30 patients with depression who received pharmacotherapy only. Group II consist of 30 patients with depression who received CBT along with pharmacotherapy. Group III consist of 30 patients with depression who received composite savouring intervention along with pharmacotherapy. Similarly, Group IV was named as combo intervention group because, the patients under this group received a combo package of Cognitive and Composite Savoring Intervention along with usual pharmacotherapy.

All these four groups were tested under six phases. Phase I was the baseline assessment of all the subjects in the four groups. In phase II all the subjects in the four groups were tested after the two months of the baseline assessment. Similarly, in phase III all the subjects in the four groups were tested again after the four months of the baseline assessment and two months of phase II. Whereas in phase IV, all the subjects in the four groups were tested again after the two months of phase III and six months of baseline assessment and at the end of phase IV all the psychological interventions were terminated whereas the pharmacotherapy was continued as usual. After the termination of psychotherapy, In phase V, all the subjects in all four groups were tested again after the three months of phase IV and nine months of baseline assessment. Similarly, in the final phase all the patients in four groups were again assessed after the six months of phase IV and twelve months of baseline assessment.

Sample

For the purpose of study 120 patients diagnosed with moderate depression was taken up. Sample was collected from the Civil Hospital Gurugram after the permission of ethical committee of Civil Hospital Gurugram. The diagnosis was

made by the psychiatrist of the hospital as per ICD10 DCR criteria, after confirming the diagnosis of patient as depression, they were referred to the researcher for psychotherapy. Then, the researcher evaluates the severity of depression with the help of BDI-II and HAMD, if the depression was of moderate level then they were include in the study. After that the selected sample were divided into four groups randomly (Pharmacotherapy group, cognitive Behaviour Therapy group, Composite Savoring Intervention group and Combo Intervention group) with the help of the fishbowl technique. The age range of the sample was 28.06+6.28 years.

Most of the sample included in the present study were females (55%), married (49.2%), Hindu by religion (99.2%), educated above 10th (80.8%), were doing private job (30.8%), from Middle SES (88.3%), belongs to urban area (39.2%) and 15.8% were having history of psychiatric illness.

Patients with the diagnosis of moderate depression as per ICD-10 (WHO, 1991), unipolar depression, with age range of 20-40 years of age and who can read and write Hindi were included in the present study. Whereas patient with mild and severe depression, Bipolar Affective Disorder and Psychotic symptoms were excluded from the present study.

Competence of the therapist

All the modes of the therapy was conducted by a professional therapist having experience of more than three years in clinical psychology and affiliated as Clinical Psychologist under Rehabilitation Council of India (RCI No.: A36406).

Tools to be used:

Socio-demographic and Clinical Data Sheet

It was a Performa which was specially designed in order to gather data sociodemographic variables for the purpose of present research. This comprised information such as – age, gender, residential status, marital status, educational status, profession, history of current illness, significant personal history, significant past psychiatric history, history of previous episodes of depression and diagnosis.

Beck Depression Inventory-II

It has been generated by Beck²⁸ in 1996. The reliability of the test is very high. The author found the test-retest reliability above 0.90. The correlation coefficient is 0.86 which shows high internal consistency. This inventory has high content validity. Beck et al., (1961) reported the concurrent validity of BDI as 0.65 and 0.67. Each item of BDI-II tries to measure a specific sign or attitude that seems relevant to the patients suffering with depression. When the inventory was translated in Hindi then the reliability for the inventory found to be 0.862. Hindi translation was done by Kushwaha²⁹ in 2016.

This inventory is a self-reported and it contains 21 items which are in multiple choice arrangement, items were scored as 0-3. It measures severity of depression

and can be administered from the age of 13 years and above. Total score of the inventory ranges from 0-63.

Savoring Belief Inventory

It is a self-report inventory, developed by Bryant²³ in 2003. This helps the therapist to assess the savoring beliefs. Test-retest reliability of SBI total score is 0.84 which show significance at 0.01 level. It consists 24 questions which are scored on 1-7 which ranges from strongly agree to strongly disagree. It was translated in Hindi by the first author for the present study. Bilingual form was used for the purpose of research which contained statements in Hindi as well as in English.

Procedure

At first, informed consent was taken before screening for eligibility and then once again from the eligible participants before enrolling them in the study. The procedure of research explained in detail about why the study was being done, how the study was done, the need for complying with the scheduled follow up visits for therapies. They had been provided the 'participant information sheet' that contained all the information about the study- aim of the study, processes involved risks and benefits. The patients encouraged to read the information sheet and also consult with their family members before they gave their written informed consent. The participants encouraged to come along a literate family member as an informant. The participants had given sufficient time to ask questions about the study.

After that all the patients with depression visiting the hospital during the study duration approached by the researcher to ascertain their eligibility to take part in the study. BDI-II Hindi version and HAMD were administered at the time of screening to determine that the patient had moderate depression. If eligible participants gave their consent to take part in present research, they were enrolled. Information related to socio-demographic details, clinical history, history of past and present illness obtained and recorded in structured case recording forms (CRF).

Both male and female patients with moderate depression, those fulfilled the inclusion and exclusion criteria were recruited for the research. After that, their socio-demographic data was collected and then they were assessed with HAM-D, BDI-II and SBI. Afterwards screening they divided in to four groups randomly by using fishbowl technique. Initially 120 slips written with pharmacotherapy group, cognitive behaviour therapy group, composite savoring intervention group and combo intervention group (30 each) were put in a fishbowl. The selected patients were asked to pick a slip from the bowl and as per the picked slip was assigned to a group out of the four groups.

First group undergone pharmacotherapy; the second group got CBT; the third group received CSI and the fourth group undergone Combo package of interventions. 16 sessions of therapeutic procedure given to all participants individually. Along with psychotherapy all participants took anti-depressants

(SSRI's). If any participant had suicidal ideation during the study than they were put on best suited therapeutics. After the completion of therapy sessions, the patients were put on follow up sessions in the gap of three months to see the effectiveness of therapies in preventing relapse.

Statistical Analysis

After the completion of different treatment, the data were entered and analysed with the help of SPSS –version 16 software. The data were analysed with the suitable statistical techniques. For data analysis at first missing value analysis was done as total 22 patients left the study in between, the missing values were imputed by estimated mean. After that repeated measure ANOVA was used to see the statistical differences between the six phases of treatments on depression and savoring Belief scores and Post-hoc test was done to see the significant difference between different groups and phases on depression and savoring belief score.

Results

Table 1
Showing the comparison of baseline depression scores across all four groups

Variable	Sum of Squares	Mean Square	Df	F	p
BDI	1.892	0.631	3	0.424	0.73
HAM-D	1.500	0.500	3	0.289	0.833

Table showing the comparison of baseline depression scores across all four groups. It shows that there was not any significant difference on the score of depression across all four groups. It means that all the groups were similar on depression at baseline.

Table 2
Showing the changes the severity of depression after 4th phase and after one year of follow up across all four groups (Chi square analysis)

Group	Depression (Phase IV)			x ²	Depression (One Year Follow up)			x ²
	No Depression N (%)	Mild Depression N (%)	Moderate Depression N (%)		No Depression N (%)	Mild Depression N (%)	Moderate Depression N (%)	
Pharmacotherapy	16 (53.33)	14 (46.67)	0	47.54 ***	16 (53.33)	3 (10)	11 (36.67)	45.58* **
Cognitive Behaviour Therapy	30 (100)	0	0		25 (83.33)	5 (16.67)	0	
Composite Savouring Intervention	30 (100)	0	0		17 (56.67)	13 (43.33)	0	
Combo Package of CBT and CSI	30 (100)	0	0		25 (83.33)	5 (16.67)	0	

p<0.001

Table showing the changes the severity of depression after phase IV and after one year of follow up across all four groups. It shows that after phase IV i.e., after termination of psychotherapies, all the groups differ significantly ($p < 0.001$) on depression scores. Further it shows that after pharmacotherapy only, 53.33% patients improved whereas after pharmacotherapy along with CBT, Composite savouring interventions and Combo package of CBT and CSI 100% patients improved.

On the other hand, after one year of follow up (Six months post intervention) i.e., after phase VI, all the groups differ significantly ($p < 0.001$) on depression scores. Further it shows that patient who received CBT and combo package of CBT and CSI were having minimum relapse (Mild depression: 16.67%) as compare to savouring (Mild depression: 43.3%) and Pharmacotherapy (Mild: 10%; Moderate depression 36.67%).

Table 3 (a)
Summary of Multivariate Test Score (Pillai Trace)

Effect	Pillai's Trace Value	F-value	Df	p Value
Phases	0.98	1474.00	5/112	0.001
Phases X Group	1.20	15.22	15/342	0.001

Table 3 (a) findings are on the basis of Pillai's Trace test which is a multivariate test. F value was found significant at 0.01 level in between phases and different groups. Thus, data revealed fitness of the model for 4x6 repeated measure design. This was followed Mauchly's test of sphericity to find the significance on sphericity of data, described in table 2 (b).

Table 3 (b)
Mauchly's Test of Sphericity

Within Subject	Mauchly's W	Approx. Chi Square	Df	p Value
Phases	0.022	435.163	14	0.001

The Mauchly's test of sphericity was significant at 0.01 level i.e., the scores over phases were not very scattered and close to linear line. Repeated measure ANOVA was done based on this model. Table 3 have the analysis obtained from repeated measure ANOVA.

Table 4
Summary of repeated measure ANOVA on depression scores obtained from BDI-II

Source	Sum of Square	df	Mean Square	F-Ratio	p Value	Post Hoc (Tukey)
Between Groups						
Groups	2295.68	3	765.23	35.72	0.001	Pharmacotherapy > Cognitive Behaviour Therapy, Composite Savoring Interventions,

						Combo package of Interventions
Within Groups						
Phases	25275.14	5	5055.03	1234.0	0.001	1>2,3,4,5,6; 2>3,4,5,6; 3>4,5; 4<5,6; 5<6.
Phases X Group	1254.24	15	83.62	20.41	0.001	

Since sphericity was significant in data analysis the criterion F-test value was taken as sphericity assumed. The findings from repeated measure ANOVA reveals that groups and phases have the significant main and interaction effect as F value was significant at 0.001 level.

Mean difference of groups obtained from Tukey's post hoc test shows that Pharmacotherapy (PT) group significantly higher score on depression as compare to all other three groups i.e. Cognitive Behaviour Therapy (CBT) group, Composite Savoring Interventions (CSI) group and Combo Package of Interventions (CPI) at 0.01 level. But there was no significant difference found in between CBT group, CSI group and CPI group. This depicts that CBT, CSI and CPI along with PT is more effective to reduce the depression than alone PT.

On the other hand, mean difference of phases obtained from Tukey's post hoc test revealed that there was significant mean difference with in all phases at 0.01 level except phase 3 and 6. Further it revealed that phase 1 has significantly higher score on depression than phase 2, 3, 4, 5, and 6. Similarly phase 2 had significantly higher score on depression than phase 3, 4, 5, and 6 and phase 3 had significantly higher score on depression than phase 4 and 5. Whereas phase 4 had significantly lower score on depression than phase 5 and 6 and phase 5 had significantly lower score on depression than phase 6. Further it revealed that after the phase 3 i.e., (after the termination of psychotherapy) patient depression score started to increase significantly.

Table 5 (a)
Summary of Multivariate Test Score (Pillai Trace)

Effect	Pillai's Trace Value	F-value	Df	p Value
Phases	0.98	1.118	5/112	0.001
Phases X Group	1.36	18.92	15/342	0.001

Table 5(a) described the findings on the basis of Pillai's Trace test which is a multivariate test. F value was found significant at 0.01 level in between phases as well as between phases and different groups. Thus, data revealed fitness of the model for 4x6 repeated measure design. This was followed Mauchly's test of sphericity to find the significance on sphericity of data, described in table 4 (b).

Table 5 (b)
Mauchly's Test of Sphericity

Within Subject	Mauchly's W	Approx. Chi Square	Df	p Value
Phases	0.039	370.038	14	0.001

The Mauchly's test of sphericity was significant at 0.01 level i.e., the scores over phases were not very scattered and close to linear line. Repeated measure ANOVA was done based on this model. Table 5 have the analysis obtained from repeated measure ANOVA.

Table 6
Summary of repeated measure ANOVA for Savoring's Scores

Source	Sum of Square	Df	Mean Square	F-Ratio	p Value	Post Hoc (Tukey)
Between Groups						
Groups	154536.06	3	51512.02	132.14	0.001	Pharmacotherapy < Cognitive Behaviour Therapy, Composite Savoring Interventions, Combo package of Interventions; Cognitive Behaviour Therapy < Composite Savoring Interventions, Combo package of Interventions
Within Groups						
Phases	719367.42	5	143873.48	1870.0	0.001	1<2,3,4,5,6; 2<3,4,5,6; 3<4,5,6; 4>5,6; 5>6.
Phases X Group	46840.65	15	3122.71	40.59	0.001	

Since sphericity was significant in data analysis the criterion F-test value was taken as sphericity assumed. And the significance of F-value at 0.01 level shows that there was significant main effect of group and phases as well as significant interaction effect between phases and groups.

Mean difference of groups obtained from Tukey's post hoc test shows that Pharmacotherapy (PT) group significantly lower score on savoring belief as compare to all other three groups i.e. Cognitive Behaviour Therapy (CBT) group, Composite Savoring Interventions (CSI) group and Combo Package of Interventions (CPI) at 0.01 level. And Cognitive behaviour therapy group had significantly lower score on savoring beliefs as compare to CSI group and CPI group. Whereas there was not any significant difference between CSI group and CPI group.

On the other hand, mean difference of phases obtained from Tukey's post hoc test revealed that there was significant mean difference with in all phases at 0.01 level. Further it revealed that phase 1 has significantly lower score on savoring beliefs than phase 2, 3, 4, 5, and 6. Similarly phase 2 had significantly lower score on savoring beliefs than phase 3, 4, 5, and 6 and phase 3 had significantly lower score on savoring beliefs than phase 4, 5 and 6. Whereas phase 4 had significantly higher score score on savouring beliefs than phase 5 and 6 and phase 5 had significantly higher score on savoring beliefs than phase 6. Further it revealed that after the phase 3 i.e., (after the termination of psychotherapy) patient score on savouring belief started to decrease significantly.

Discussion

The present study was designed to study the effectiveness of four different types of psychological and pharmacological treatments to reduce the severity of depression. The treatments were: pharmacological treatment (PT), Cognitive Behaviour Therapy (CBT) along with usual PT, Composite Savoring Interventions (CSI) along with usual PT and Combo package of interventions (CPI) along with usual PT. For this purpose, the major objective of the present study was to study the effectiveness of Cognitive Behaviour Therapy and savoring package in moderate Depression.

Effectiveness of CBT

In this study, patients who received the CBT along with PT as treatment showed more improvement in depression scores than the PT alone. But there was no significant difference found in between CBT group, CSI group and CPI group. This depicts that CBT, CSI and CPI along with PT is more effective to reduce the depression than alone PT. The findings of the present study were found to be consistent with previous literature in which it was found that CBT has medium effect size ($d=0.67$) as compare to those who did not receive any scientific psychological treatment.³⁰⁻³¹ Similarly, CBT was found to be equally effective in comparison to other psychological treatments.³¹⁻³³ Though these studies did not compare CBT with savouring therapy.

On the other hand, CBT and combo package of CBT and CSI along with PT (Relapse rate after one year and six months post intervention is 16.67%) was found to be effective treatment with a smaller number of relapses for the depression as compared to CSI alone (Relapse rate of Mild depression: 43.3%) and Pharmacotherapy alone (Relapse rate of Mild depression: 10%; Moderate depression 36.67%) to treat the depression as well as to prevent the relapse.

The findings of the present study also revealed that CBT is superior to prevent relapse as compare to CSI and Pharmacotherapy only after six-month post intervention. There are evidences in the literature also in which it was found that CBT has durable effects for the management of depression as compare to other modes of psychological interventions.³⁴⁻³⁵

Effectiveness of composite savoring index

The other finding of the present research revealed that the CBT is not significantly different from CSI in treating depression. CSI is a type of positive psychology intervention which is a combination of different type of savoring strategies. These two therapies are totally different from each other in the mechanism of their work. CBT works on cognitive model and CSI works on positive psychology principles. CBT works to challenge the negative thoughts while CSI works to cultivate the positivity by memorizing good memories, showing gratitude and self-praise etc. Though they are of different nature, but both of them show equal impact on depressive symptoms which proves the efficacy of Positive psychology intervention.

These findings are in line with the studies of Zhang et al., (2015)³⁶, who took 76 nursing students having depressive symptoms and divided them into two groups. One group received Positive psychology intervention (PPI) and other group was maintained as control group. After the completion of sessions, he revealed that PPI is helpful to manage depressive symptoms. This findings are also found to be same as the findings of Chaves et al. (2017)³⁷, in which 97 adults having depression as sample and divided them in to two groups. One group received CBT as intervention and second group received PPI. After completion of therapy, the findings revealed that PPI is equally efficacious as CBT in managing depression.

Another objective was “to study the Cognitive Behaviour Therapy in combination with Savoring in moderate depression”. Combination was named as CPI. It consists of cognitive techniques as well as savoring strategies with in the same therapy. Combo package along with usual PT was found superior to PT alone and didn't show any significant difference with CBT+PT and CSI+PT to reduce the depression. CPI was found to be as effective as CBT. The findings also revealed that CPI's effects were constantly increasing throughout the therapy procedures like other therapy. On the relapse part, the relapse rate of CSI is as equal as to CBT and significantly lower than Pt only and CSI with Pt. It showed that we can use combo package as anti-dot to manage the symptoms as well as for relapse prevention.

Comparison of savouring scores

Savoring beliefs, another dependent measure the results showed that CPI+PT and CSI+PT were more effective to enhance savoring beliefs or positive attitude than CBT+PT and PT alone. It can be explained on the basis of treatment model followed by each therapeutic procedure. Cognitive therapy solely works on negative cognitions, so that it reduce the negative thought. With reduction of negative thoughts, the patients also show capacity to joy but little less that CSI+PT and CPI+ PT. CSI+PT solely works on enhancing the positivity and try to teach the exercises which enhances the capacity of enjoying the events or things. With CSI, patients were also taking medications which in turn enhance their mood so that the more enhancement were seen in savoring belief scores. CPI along with pharmacotherapy, focused on cognitive aspects, increasing happiness and medications enhanced the mood, so that the more enhancement in savoring belief score was seen in this group.

These findings also prove that when the depression patients trained with savoring strategies, it reduced the depression. This finding is supported by the findings of Lyubomirsky, Dickerhoof, Boehm and Sheldon (2011)³⁸ who conducted his study on 355 undergraduates, and used expressing optimism and gratitude. This experiment conducted for 8 months and which showed that the students who regularly practiced these two exercises their well-being scores were enhanced.

The present study also is in line with the McCabe-Fitch³⁹ study conducted in 2009. He took 50 school students and randomly divided into two groups, one group received PPI and second as control group. The results found that PPI was efficacious in promoting life satisfaction and happiness.

The present study concludes that cognitive behaviour therapy, composite savoring intervention and combo package of interventions along with pharmacotherapy are the suitable treatments to reduce the depressive symptoms. They all in combination with pharmacotherapy found to be superior to pharmacotherapy alone. CSI can be used to enhance the positivity in the normal individual too who report negative symptoms. However, in order to prevent relapse, CBT and Combo package of interventions found to be superior than CSI and PT. Hence, it can be concluded that CSI and Combo package of interventions are equally effective as CBT to treat depression but CSI is having higher relapse rate as compare to CBT and Combo package of interventions. Despite all these findings, the present research has some limitations like in the present study all form of the intervention was given for six months but termination was not planned properly and termination should have been planned for three months post intervention. The present study assesses the durability of psychological interventions (cognitive behaviour therapy, composite savoring intervention and combo package of interventions along with pharmacotherapy) till six months after the intervention. However, two years follow up data would have given better understanding of the results. Whereas in future, there is a robust need to develop a comprehensive package of psychological intervention consists of savouring, mindfulness, gratitude writing along with CBT.

Conflict of interest: The author declares there is no conflict of interest in the present manuscript.

Acknowledgements

The authors thank [Fred B. Bryant](#) for his guidance for savouring module and all the participants to participate in the study.

References

1. Zimmerman M, McGlinchey JB, Chelminski I, Young D. Diagnostic comorbidity in 2300 psychiatric out-patients presenting for treatment evaluated with a semi-structured diagnostic interview. *Psychological Medicine*. 2008 Feb 1;38(2):199-210.
2. Patel V. Influences on cost effectiveness. *The British Journal of Psychiatry*. 1996 Sep;169(3):381.
3. Madhav M. S. Epidemiological Study of Prevalence of Mental Disorders in India. *Indian Journal of Community Medicine*. 2001; 26(4), 2001-2010.

4. Murray CJ, Lopez AD, World Health Organization. The global burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020: summary. World Health Organization; 1996.
5. World Health Organization. The world health report 2002: reducing risks, promoting healthy life. World Health Organization; 2002.
6. Turner EH, Matthews AM, Linardatos E, Tell RA, Rosenthal R. Selective publication of antidepressant trials and its influence on apparent efficacy. *New England Journal of Medicine*. 2008 Jan 17;358(3):252-60.
7. American Psychiatric Association. Practice guideline for the treatment of patients with major depressive disorder (3rd ed.). 2010; Arlington, VA: Author.
8. Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *Clinical psychology review*. 2006 Jan 1;26(1):17-31.
9. Hollon SD, Ponniah K. A review of empirically supported psychological therapies for mood disorders in adults. *Depression and anxiety*. 2010 Oct;27(10):891-932.
10. Beck AT, Rush A.J, Shaw B.F, Emery, G. *Cognitive therapy of depression*. Guilford press; 1979.
11. Blackburn IM, Bishop S, Glen AI, Whalley LJ, Christie JE. The efficacy of cognitive therapy in depression: a treatment trial using cognitive therapy and pharmacotherapy, each alone and in combination. *The British Journal of Psychiatry*. 1981 Sep;139(3):181-9.
12. Evans MD, Hollon SD, DeRubeis RJ, Piasecki JM, Grove WM, Garvey MJ, Tuason VB. Differential relapse following cognitive therapy and pharmacotherapy for depression. *Archives of general psychiatry*. 1992 Oct 1;49(10):802-8.
13. Paykel ES, Scott J, Teasdale JD, Johnson AL, Garland A, Moore R, Jenaway A, Cornwall PL, Hayhurst H, Abbott R, Pope M. Prevention of relapse in residual depression by cognitive therapy: a controlled trial. *Archives of General Psychiatry*. 1999 Sep 1;56(9):829-35.
14. Seligman ME, Csikszentmihalyi M. Positive psychology [Special issue]. *American Psychologist*. 2000;55(1):5-14.
15. Hoffman E, Iversen V, Ortiz FA. Peak-experiences among Norwegian youth. *Nordic Psychology*. 2010 Dec;62(4):67.
16. Bolier L, Haverman M, Westerhof GJ, Riper H, Smit F, Bohlmeijer E. Positive psychology interventions: a meta-analysis of randomized controlled studies. *BMC public health*. 2013 Dec;13(1):1-20.
17. Fava GA, Rafanelli C, Grandi S, Conti S, Belluardo P. Prevention of recurrent depression with cognitive behavioral therapy: preliminary findings. *Archives of general psychiatry*. 1998 Sep 1;55(9):816-20.
18. Segal ZV, Teasdale JD, Williams JM, Gemar MC. The mindfulness-based cognitive therapy adherence scale: Inter-rater reliability, adherence to protocol and treatment distinctiveness. *Clinical Psychology & Psychotherapy*. 2002 Mar;9(2):131-8.
19. Fava GA, Rafanelli C, Cazzaro M, Conti S, Grandi S. Well-being therapy. A novel psychotherapeutic approach for residual symptoms of affective disorders. *Psychological medicine*. 1998 Mar;28(2):475-80.

20. Bryant FB. A four-factor model of perceived control: Avoiding, coping, obtaining, and savoring. *Journal of personality*. 1989 Dec;57(4):773-97.
21. Bryant FB, Veroff J. Dimensions of subjective mental health in American men and women. *Journal of Health and Social Behavior*. 1984 Jun 1:116-35.
22. Bryant FB, Veroff JS. A new model of positive experience. 2007; Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
23. Bryant F. Savoring Beliefs Inventory (SBI): A scale for measuring beliefs about savouring. *Journal of mental health*. 2003 Jan 1;12(2):175-96.
24. Quoidbach J, Berry EV, Hansenne M, Mikolajczak M. Positive emotion regulation and well-being: Comparing the impact of eight savoring and dampening strategies. *Personality and individual differences*. 2010 Oct 1;49(5):368-73.
25. Hurley DB, Kwon P. Results of a study to increase savoring the moment: Differential impact on positive and negative outcomes. *Journal of Happiness Studies*. 2012 Aug;13(4):579-88.
26. Blackwell SE, Browning M, Mathews A, Pictet A, Welch J, Davies J, Watson P, Geddes JR, Holmes EA. Positive imagery-based cognitive bias modification as a web-based treatment tool for depressed adults: a randomized controlled trial. *Clinical Psychological Science*. 2015 Jan;3(1):91-111.
27. Jose PE, Lim BT, Bryant FB. Does savoring increase happiness? A daily diary study. *The Journal of Positive Psychology*. 2012 May 1;7(3):176-87.
28. Beck AT, Steer RA, Brown GK. Beck depression inventory (BDI-II). Pearson; 1996.
29. Kushwaha JK. Beck depression inventory: Hindi translation and psychometric properties for the students of higher education. *Journal of Research in Humanities and Social Science*. 2016;4(9):39-49.
30. van Straten A, Geraedts A, Verdonck-de Leeuw I, Andersson G, Cuijpers P. Psychological treatment of depressive symptoms in patients with medical disorders: a meta-analysis. *Journal of psychosomatic research*. 2010 Jul 1;69(1):23-32.
31. Beltman MW, Voshaar RC, Speckens AE. Cognitive-behavioural therapy for depression in people with a somatic disease: Meta-analysis of randomised controlled trials. *The British journal of psychiatry*. 2010 Jul;197(1):11-9.
32. Cuijpers P, Smit F, Bohlmeijer E, Hollon SD, Andersson G. Efficacy of cognitive-behavioural therapy and other psychological treatments for adult depression: meta-analytic study of publication bias. *The British Journal of Psychiatry*. 2010 Mar;196(3):173-8.
33. Pfeiffer PN, Heisler M, Piette JD, Rogers MA, Valenstein M. Efficacy of peer support interventions for depression: a meta-analysis. *General hospital psychiatry*. 2011 Jan 1;33(1):29-36.
34. Paykel ES, Scott J, Teasdale JD, Johnson AL, Garland A, Moore R, Jenaway A, Cornwall PL, Hayhurst H, Abbott R, Pope M. Prevention of relapse in residual depression by cognitive therapy: a controlled trial. *Archives of General Psychiatry*. 1999 Sep 1;56(9):829-35.
35. Bockting CL, Schene AH, Spinhoven P, Koeter MW, Wouters LF, Huyser J, Kamphuis JH. Preventing relapse/recurrence in recurrent depression with cognitive therapy: a randomized controlled trial. *Journal of consulting and clinical psychology*. 2005 Aug;73(4):647-53.
36. Zhang JP, Guo YF, Zhang X, Li H, ZhenYin Y, Hung FF, Ye M. Effects of Positive Psychotherapy on Depression and Self-efficacy in Undergraduate

- Nursing Students Positive Psychotherapy. *Research & Reviews: Journal of Nursing & Health Sciences*. 2015; 1(3), 12-18.
37. Chaves C, Lopez-Gomez I, Hervas G, Vazquez C. A comparative study on the efficacy of a positive psychology intervention and a cognitive behavioral therapy for clinical depression. *Cognitive therapy and research*. 2017 Jun 1;41(3):417-33.
 38. Lyubomirsky S, Dickerhoof R, Boehm JK, Sheldon KM. Becoming happier takes both a will and a proper way: an experimental longitudinal intervention to boost well-being. *Emotion*. 2011 Apr;11(2):391.
 39. McCabe-Fitch KA. Examination of the impact of an intervention in positive psychology on the happiness and life satisfaction of children. University of Connecticut; 2009.