D is like an octopus; it reaches its tentacles into so many aspects of life. Including behavioural thoughts, emotions, relationships etc. It is very important to determine whether D is causing impairment or interfering in any significant way with the individual’s life. It may interfere with the ability to function at work, reducing productivity or it may cause absenteeism the person is just too depressed to get up and go out. Women are diagnosed with D more frequently than men. May be because they are more comfortable in talking about it and admitting it.

It is one of the most common mental health illnesses. Characterized by a state of low mood and aversion to activity that can affect a person’s thoughts, behaviours, feelings and sense of well being. Once a diagnosis of D has been made there are different kinds of treatments available to be selected from. Majorly medication and psychotherapy are the form of treatments considered.

The purpose of the present study was to study the effectiveness of CBT, M and a combination of M+CBT in the treatment of mild to moderate depressed patients along with variables of the study: Self-E, self esteem CDs, problem solving and stress. A pre-post research design was employed further Mean, Standard Deviation, Kruskal- Wallis H test and Paired Sample t-test analysis was performed to evaluate the results of the study.

AIMS

1. To study the change brought in scores of D, Self-E, Self-Esteem, Perceived Stress, Social Problem Solving and CDs after the introduction of interventions in 3 treatment groups viz CBT, M and combined M+CBT group.
2. To evaluate the EN of combined M+CBT as an intervention in treatment of D, enhancing Self-E, Self-Esteem, reducing the level of Perceived Stress, improving Social Problem Solving skill and reducing the level of CDs.
3. To study the EN of the 4 groups (viz, CBT, M, Combined M+CBT and Control Group) in terms of Relapse Prevention.
HYPOTHESES

Rationale: Hypothesis 1 is divided into 6 parts in order to assess the pre and post scores of BDI (D), Self-E, Self-Esteem, Perceived Stress, Social Problem Solving and CDs in all the 3 treatment groups (viz., CBT, M and combined M+CBT). As alluded in the previous sections of this thesis that CBT is an effective mode of psychotherapy for the treatment of D. Recently developed M based interventions have also added to this literature by reporting significant improvements in D after M based intervention were introduced. Now, as both the approaches are being combined together by the investigator they should also provide somewhat similar results. In order to understand the level of change brought by the 3 treatment conditions would help practioners to modify their technique of treatment which would help the clients in turn.

H_1 There will be a significant difference in the pre and post scores of -

- \( H_{1a} \) D (BDI), in the 3 treatment groups (viz., CBT, M and combined M+CBT).
- \( H_{1b} \) Self-E in the 3 treatment groups (viz., CBT, M and combined M+CBT).
- \( H_{1c} \) Self-Esteem in the 3 treatment groups (viz., CBT, M and combined M+CBT).
- \( H_{1d} \) Perceived Stress in the 3 treatment groups (viz., CBT, M and combined M+CBT).
- \( H_{1e} \) Social Problem Solving in the 3 treatment groups (viz., CBT, M and combined M+CBT).
- \( H_{1f} \) CDs in the 3 treatment groups (viz., CBT, M and combined M+CBT).

Rationale: Hypothesis 2 is divided into 6 parts in order to assess the pre and post scores of BDI (D), Self-E, Self-Esteem, Perceived Stress, Social Problem Solving and CDs in the control group. As no intervention was exposed to this group there should be no difference in the scores which will help the investigator to validate the change brought (if any) in the scores of the intervention groups (viz., CBT, M and combined M+CBT).
H2: There will be no difference in the pre-post scores of-

- H2a D (BDI) in the control group.
- H2b Self-E in the control group.
- H2c Self-Esteem in the control group.
- H2d Perceived Stress in the control group.
- H2e Social Problem Solving in the control group.
- H2f CDs in the control group.

**Rationale:** Hypothesis 3 is divided into 6 parts in order to assess the level of D, Self-E, Self-Esteem, Perceived Stress, CDs and Social Problem Solving among the clients post intervention in the 3 treatment conditions (that is, CBT, M and combined M+CBT) and the control group. As already mentioned CBT has overabundance of literature supporting the EN in bringing out the above mentioned changes. M comparatively new mode is also backed by many researches which indicate similar results. It can be explored that in spite of producing similar change does the both techniques also bring similar level of change or there is any difference. What if both the treatment modalities are combined together then do they bring similar change or not.

H3 There will be a significant difference in the post intervention scores of-

- H3a BDI among the 4 groups viz, CBT, M, combined M+CBT and Control group.
- H3b Self-E among the 4 groups viz, CBT, M, combined M+CBT and Control group.
- H3c Self-Esteem among the 4 groups viz, CBT, M, combined M+CBT and Control group.
- H3d Perceived Stress among the 4 groups viz, CBT, M, combined M+CBT and Control group.
- H3e Social Problem Solving among the 4 groups viz, CBT, M, combined M+CBT and Control group.
- H3f CDs among the 4 groups viz, CBT, M, combined M+CBT and Control group.
Rationale: Hypothesis 4 is divided into 6 parts in order to assess the efficacy of combined M+CBT in reducing the symptom severity of depression, level of perceived stress, and CDs also in enhancing the sense of Self-E, self-esteem and social problem solving skills of the clients. There is a plethora of research contributing to the data reporting the efficacy of CBT in producing these results. Newly developed psychotherapy MBCT has also shown to produce similar results by developing M based therapy. What if M is combined with CBT does that also produce similar results?

- **H4a** The post intervention scores on BDI will be the lowest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.
- **H4b** The post intervention scores on Self-E will be the highest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.
- **H4c** The post intervention scores on self-esteem will be the highest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.
- **H4d** The post intervention scores on Perceived Stress will be the lowest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.
- **H4e** The post intervention scores on Social Problem Solving will be the highest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.
- **H4f** The post intervention scores on CD will be the lowest in combined M+CBT group as compared to other groups viz, CBT, M and Control group.

Rationale: Hypothesis 5 was developed to assess the relapse prevention in all the 3 treatment groups and control group. Clients treated in combined M+CBT would have significantly low rate of relapse as compared to other groups. CBT is already been proved by many researchers to be an effective psychotherapy in reducing relapse rates in depressed individuals. Several researches have even pointed out the contribution of
M in reducing the rate of relapse especially in depressed individuals. So when both the effective treatment modalities are combined together they should produce effect results which would be used by therapist in the effective treatment of D.

H₃: Scores on BDI (after 3 months of post intervention) will be the lowest in combined M+CBT group as compared to other groups.

VARIABLES OF THE STUDY

Independent Variables
1. CBT
2. M
3. Combined M and CBT

Dependent Variables
1. D
2. Self Esteem
3. Self Efficacy
4. Perceived Stress
5. Cognitive Distortion
6. Social Problem Solving
7. Relapse Prevention

DESIGN OF THE STUDY

The study was conducted based on Pre-Post Research Design.

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-Assessment*</th>
<th>Intervention</th>
<th>Post-Intervention**</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (M)</td>
<td></td>
<td>M M</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B (CBT)</td>
<td></td>
<td>CBT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C (Combined M and CBT)</td>
<td></td>
<td>M M and CBT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D (Control Group)</td>
<td></td>
<td>No Intervention</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*/*/* Selected Variables (D, Perceived Stress, Self-E, Self-Esteem, Cognitive Distortion, Social Problem Solving & Relapse Prevention) of the Study were Measured
RESEARCH PLAN

**Research Plan**

<table>
<thead>
<tr>
<th>Pre Test (n=20)</th>
<th>Treatment Phase (n=20)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Group A (n=5)</td>
</tr>
<tr>
<td></td>
<td>Group B (n=5)</td>
</tr>
<tr>
<td></td>
<td>Group C (n=5)</td>
</tr>
<tr>
<td></td>
<td>Group D (n=5)</td>
</tr>
<tr>
<td>(Scores obtained on all variables of the study)</td>
<td>(Mindfulness)</td>
</tr>
<tr>
<td></td>
<td>Post Test Assessment (n=20)</td>
</tr>
<tr>
<td></td>
<td>Assessment at 3 months post intervention for relapse assessment (n=20)</td>
</tr>
</tbody>
</table>

SAMPLE OF THE STUDY

The sample size of the study consisted of 20 depressed patients. 5 participants constituted each group viz M, CBT, combined M and CBT and Control Group. The participants were selected from Government Hospital Psychiatric OPD. The detail of the sample is as given below:

<table>
<thead>
<tr>
<th>A (M)</th>
<th>B (CBT)</th>
<th>C (Combined M and CBT)</th>
<th>D (Control Group)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

In the present study purposive sampling was employed. Participants were voluntarily selected and anonymity was maintained. Twenty participants were selected for the study. These participants received the treatment at the same time. Five extra participants were selected in each treatment group in order to protect against potential dropout. The participants were required to meet a number of criteria’s.
Inclusion Criteria
1. 18 years and above
2. Knowledge of English language
3. Stable on medications for a minimum period of 1 month
4. Primary diagnosis of D (DSM-IV TR)
5. Either free of psychoactive medication or on a stable medication regimen for at least a month prior to baseline assessment and willingness to refrain from making any medication changes throughout treatment.

Exclusion Criteria
1. Co-morbid psychiatric disorder and neurological disorders (psychosis, bipolar affective disorder, severe D with psychotic symptoms, current psychoactive substance abuse or dependence, mental retardation, epilepsy, head injury and other neurological disorders), and Patients who had received any adequate trial (10-12 sessions) of cognitive behavior therapy in the previous year.
2. Or has undergone any type of therapeutic process.

CONTROLS
• To control the bias the tests were administered in random order.
• To control extraneous variables all the testing work was carried out by the investigator herself.
• Before administering the tests the participants were informed that the results would be kept confidential and would be used for research purpose only.
• Recipients of intervention didn’t receive any other professional help (in terms of therapeutic help) during the course of study.

TOOLS OF THE STUDY
1. Socio-demographic and Clinical Data Sheet (was developed for the study)
2. The Diagnostic and Statistical Manual Brief Symptom Interview for D (DSM Interview; Stark & Sander, 2002)
3. The Beck D Inventory (BDI-II; Beck et al., 1996)
4. The Five Facet M Questionnaire (FFMQ; Baer et al., 2006)
5. The General Self-E Scale (Schwarzer and Jerusalem, 1992)
6. The Rosenberg Self-Esteem Scale (Rosenberg, 1965)
7. The Perceived Stress Scale – 4 (PSS4; Spring., 2008)
8. The Inventory of Cognitive Distortions (ICD; Yurica & DiTomasso, 2002)
9. Social Problem-Solving Inventory-Revised (SPSI-R; D’Zurilla et al., 2002)

**PROCEDURE**

The study was conducted in two phases, namely, the Pilot and the Main study.

**Pilot Phase**

The purpose of doing pilot study was:-

1. To ensure the feasibility of the tools selected for the sample of the study.
2. For the researcher to gain familiarity and expertise in the administration, scoring and interpretation of the tools.
3. To finalizing the tools for the main study.
4. To know the average time in which the assessment can be conducted.
5. To know about the psychological mindset of the patients.

During the pilot phase four patients diagnosed with D were selected from the OPD of Government Hospital, Jaipur after taking permission from the hospital administration. Then these cases were assessed using the measures of the study (viz, Socio-demographic and Clinical Data Sheet, DSM Interview for D, BDI II, FFMQ, Self-E Scale, RSES, PSS4, ICD and SPSI-R) after that the cases were recruited in all the 3 treatment condition and 1 in control groups and adequate trial of M, CBT and Combined M+CBT were administered. Baseline and post assessment were carried out.

**Main Study**

After the completion of the pilot phase, main study was initiated. Cases of pilot study were not included in the main study.
Summary and Conclusion

Main Study Plan

After the completion of the pilot phase, the main study was initiated

- Approaching the patient for their participation

- Meeting inclusion and exclusion criteria
  - YES: Written Informed Consent
    - YES: Initial evaluation (pre-test)
    - NO: Excluded
  - NO: Excluded

- Treatment phase (12 sessions)

- Group A (Mindfulness)
- Group B (CBT)
- Group C (CBT-Mindfulness)
- Group D (Control)

- Post Test Assessment

- Assessment for relapse (after 3 months)

# NOTE:- Interventions was carried out by the researcher as she is trained and licensed clinical psychologist from RCI (Rehabilitation Council of India).

MEASUREMENT SCHEDULE

The nine instruments (Socio-demographic and Clinical Data Sheet, DSM Interview for D, BDI-II, FFMQ, Self-E Scale, RSES, PSS4, ICD, and SPSI-R) were administered during the initial evaluation to determine a baseline measure prior to the start of treatment. Then the seven measures (BDI-II, FFMQ, Self-E Scale, RSES, PSS4, ICD, and SPSI-R) were re-administered at the end of the treatment that is in the 11th session. Then BDI-II was again re-administered at 3 months post treatment to evaluate relapse.
INTERVENTION DETAILS AND STRUCTURE

CBT Techniques used
1. Psycho-education
2. Behaviour activation (including activity scheduling)
3. Graded task assignment
4. Thought record
5. Cognitive restructuring (e.g. Behavioural experiment, evidence building etc)
6. Problem solving
7. Compliance training
8. Termination planning

ETHICAL CONSIDERATIONS
- Written informed consent was obtained from all the patients for their participation in the study,
- Patients were informed that they have the option to discontinue from the therapeutic program at any point of time and this would not influence their medical treatment.
- Confidentiality was assured and maintained.
- Patients who did not improve after the planned completion of therapeutic program, therapy was continued after the follow up assessment.
- The hospital management was informed about the implications of the study.
- The patients were informed that they could contact the investigator in case they need any psychological help.

STATISTICAL ANALYSIS
The following statistical tools were used in order to deploy the results:
1. Mean
2. Standard deviation
3. Kruskal-Wallis H test
4. Paired Sample t-test
SPSS 22 was used to analyse the data.
FINDINGS OF THE STUDY

The following major findings emerged from this study:

1. There was a significant difference in the pre-post scores of BDI(D), Self-E, Self-Esteem, Perceived Stress, CD and Social Problem Solving in all the three treatment groups (viz. CBT, M and Combined M+CBT).

2. Whereas, there was no such significant difference in the pre and post scores of BDI(D), Self-E, Self-Esteem, Perceived Stress and CD in the control group.

3. There was a significant difference in the pre and post scores of Social Problem Solving in the control group.

4. There was a significant difference in the post intervention scores of BDI(D), Self-E, Self-Esteem, Perceived Stress, CD and Social Problem Solving among the four groups of the study (viz. CBT, M, combined M+CBT, and control group).

5. The post intervention scores reduced significantly on BDI, Perceived Stress and CD in the combined M+CBT group indicating improvement in the depressed client.

6. In the post intervention scores increased significantly on Self-E, Self-Esteem and Social Problem Solving Skills in combined M+CBT group indicating improvement in the depressed client.

7. Post three months assessment and analysis of the result revealed that combined M+CBT is the most effective in reducing the chances of Relapse in depressed client.

8. All the three treatment conditions (viz. CBT, M and combined M+CBT) have shown significant reduction in the level of D (BDI). It was even found that there is a significant difference in the efficacy of the three intervention in reducing the level of D still further it can be concluded that CBT and M when applied in combination brings maximum benefits or is more effective than CBT or M treatments in reducing the level of D.
LIMITATIONS AND FUTURE DIRECTION

1. The sample size is small it is quite difficult to generalize the results.
2. The effectiveness of combined M+CBT treatment across gender was beyond the scope of this study.
3. The relapse prevention can be assessed after 6 and 12 months it has been tried to assess at 6 months in the present study but, due to very few turnout despite contacting them it was not included. However, it was found a very positive impact on those who have turned up. Those who did not turned up for assessment informed informally that they are doing well.
4. A study focusing on different age group will add more value to the study.

IMPLICATIONS

Despite the aforementioned limitations, the results of the current study have important implications for clinical practices and future research.

- Findings from this study contribute useful information for the practitioners’, clinical psychologist or counsellors to develop and incooperates M+CBT in combination for the treatment of depressed clients for the maximum benefit and maintenances of treatment effect.
- The present study has got practical implications at micro and macro level that is, developing awareness in common mass that D can be very well handled by the clinical psychologist if they approach at the right time
- It will help to break the stigma of the society towards the very common mental illness that is D.
- It will also help in developing trust of the clients and their care givers.