

Impact Of Mindfulness Based Intervention On The Mental Health & Emotion Regulation In Domestic Violence Survivors

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Abstract:

Aim of the study: Domestic violence is considered as a prevalent mental and physical health hazard and social problem irrespective of nationality, race and ethnicity. Irrespective of legal, medical and financial aids provided by the government it is crucial to provide them with aids to cope with mental health problems and improve their health, relations and work efficiency. The present study is aimed to develop a mindfulness-based intervention (MBI) to address the mental health problems faced by domestic violence survivors. Second aim is to assess the effectiveness of this intervention on mental health, emotion regulation of the survivors.

Research Methods: The Ex-post Facto experimental study was conducted in district Shivpuri, Madhya Pradesh, India. Women survivors of domestic violence (n=60) were recruited using purposive and snowball sampling. Survivors were divided into experimental (n=30) and control group (n=30). A tailor-made six-week long mindfulness-based training has been developed for the survivors after analysing their major problems.

Results: The post training analysis has been performed using non parametric Wilcoxon Sign-rank test. There is significant increase in mindfulness scores in experimental group, along with significant reductions in maladaptive emotion regulation strategies and in emotional distress.

Original value. In connection to previous researches MBIs have been effective to cater the emotional distress, emotional regulatory problems in domestic violence survivors. It may be applicable as a governmental or private sector program for holistic empowerment and enhancing work efficiency of abuse survivors.

Keywords: Women domestic violence survivors, mindfulness-based intervention, mental health, emotion regulation

1. INTRODUCTION

The curse of domestic violence (DV) has marred a large part of this force since ages and the whole world is thus facing catastrophic situation. Usually considered as intimate partner violence (IPV), this form of violence is characterised by, “any behaviour within an intimate relationship which causes physical, psychological, or sexual harm to those in the relationship; it includes physical aggression, psychological abuse, forced intercourse, and other forms of sexual coercion, as well as other controlling behaviours” (World Health Organisation, 2021). Government of India extends the definition to in-laws and maternal family including economic abuse and any kind of direct or indirect

misbehaviour (Violence Against Women Act, 2005). Thus, in Indian sub-continent IPV is extended to familial involvement and more prevalent as domestic violence then merely violence by a partner. Now cyberbullying and cybercrimes are also considered in this spectrum. About 1 in 3 (30%) women worldwide have experienced either physical and/or sexual intimate partner violence or non-partner sexual violence in their lifetime (World Health Organisation, 2021). Though female to male violence also occurs, violence against women is the most reported and prevalent.

According to National Family Health Survey, India (NFHS, 2019-2021) rate of married women aged 18-49 years who have ever experienced spousal violence is

28.1 % (rural – 26.4 and urban – 28.7 (NFHS- 2019-21) which was 33.0 in NFHS -4 (2015-16). Madhya Pradesh with 9th position in overall cognizable crime against women is in better phase, to come out of the image of BIMARU rajya. But there is a staggeringly higher percentage of violence cases during lockdown enforced during recent pandemic due to COVID 19 virus (Ghoshal, 2020). U.N. Women has confirmed a “shadow pandemic” of violence along with COVID-19 pandemic (UN WOMEN, 2021). Which is prevalent in more than one form i.e. physical, emotional and financial violence; causing tremendous physical and mental health hazards (Potter, Morris, Hegarty, Garcia-Moreno & Feder; 2021).

Mental health is a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (WHO, 2018). Studies from a variety of settings indicate that battered women are consistently found to have more depressive symptoms than other women with a higher prevalence of major depression (63%), post-traumatic stress disorder (40%), substance abuse both of alcohol and illicit drugs, sleep disorders and postpartum depression (Campbell, Kub & Rose, 1996). Any kind of abuse causes complex trauma in the women and her child as well including Including, “[...] Post Traumatic Stress Disorder (PTSD), depression, anxiety, self-hatred, dissociation, substance abuse, self-destructive and risk-taking behaviors, re-victimization, problems with interpersonal and intimate relationships (including parenting), medical and somatic concerns, and despair” (Courtois, 2008). Along with impairment in domains of – affect regulation, information processing, self-concept, behavioral control, interpersonal relations and biological processes i.e. somatic symptoms (Margolin & Vickerman, 2007). Child’s resilience depends on the mother’s attitude to the violence. Thus, children as a direct or indirect victim of violence show problematic behavior with chances of violence repetition in future. Single mothers also go through parental role problems (Anderson, 2012).

Emotion regulation referred here as ER are extrinsic and intrinsic processes responsible for monitoring, evaluating and modifying emotional reactions, especially the intensive and temporal features, to accomplish one’s goals (Thompson, 1994), being used interchangeably with coping (Kraij & Garnefski, 2018). ER processes are integral part of stress coping process and thus play vital role in mental health of any individual (Calvete, Corral & Estevez, 2007; Moore, Zoellner & Mollenholdt, 2008). ER problems are indicators of presence of anxiety, depression, conduct disorders and various physical health ailments (Kim & Cicchetti, 2010; Beauchaine, 2012). Thus, ER management has been now an integral

part of mental health interventions (Moses & Barlow, 2006).

Mindfulness based interventions are now being widely recommended for effective emotion regulation, enhance interpersonal relations and psychotherapeutic purposes. **Mindfulness is a psychological state** of non-judgmental moment-to-moment awareness, attention without attachment to any particular point of view also a **practice** that promotes this awareness, a mode of processing information and a character trait (Brown, Ryan & Creswell, 2007), rooted in Buddhist philosophy. Mindfulness practices are shown to activate a network of brain regions i.e. insula, putamen, somatosensory cortex and the portions of anterior cingulate cortex and prefrontal cortex (Hölzel, Carmody, Vangel, Congleton, Yerramsetti, & Gard, 2011; Tomasino & Fabbro, 2016; Zeidan, Emerson, Farris, Ray, Jung, McHaffie, & Coghill, 2015). Evidence also indicates that mindfulness based intervention (MBIs), mindfulness meditation practices have been shown to activate a network of brain regions, including the insula, putamen, somatosensory cortex and the portion of anterior cingulate cortex and prefrontal cortex (Tomasino & Fabbro, 2016). Some initial evidences also indicate that mindfulness interventions might structurally alter the brain, increasing grey matter density in hippocampus. It brings the oversized amygdala to normal (Goldin, Ziv, Jazaieri, Werner, Kraemer, Heimberg, & Gross, 2012). Thus, mindfulness practices have shown greater impact in the areas related to emotion regulation and mental health. In the various modes i.e. online or face to face training and app-based practices (Creswell, 2017). Mindfulness as a spiritual coping strategy is found to play an important role in mental health problems of IPV victims worldwide i.e. Mexico (Lauricella, 2021), Iran (Basharpour, 2020) and Chinese-American Survivors (Yeh, 2019).

The Government of India provides a wide range of aids for domestic violence survivors, i.e. legal, financial, medical help through various bodies i.e. One Stop Centres, Police Parivar Paramarsh Kendra, appointing protection officers and providing counselling. These bodies have brought remarkable improvement in condition of survivors in the last decade. But there is a need for rehabilitation as a complete empowerment of the human resource of country, by enhancing their mental health and social adjustment, work efficiency and parenting. To address this crucial issue and empower the human resource of the country present study is aimed to-

- To develop a mindfulness-based intervention plan to promote adaptive emotion regulation, decision making and enhance mental health in domestic violence survivors in Indian settings.
- To assess the effectiveness of mindfulness-based intervention on emotion regulation, decision

making styles and psychological health problems of women survivors of domestic violence.

Hypotheses

H₁: Mindfulness based intervention would significantly promote level of mindfulness in women survivors of domestic violence in experimental group.

H₂: Mindfulness based intervention would significantly decrease psychological health problems in women survivors of domestic violence in experimental group.

H₃: Mindfulness based intervention would significantly promote adaptive emotion regulation strategies and decrease maladaptive strategies in women survivors of domestic violence in experimental group.

H₄: Mindfulness based intervention would significantly facilitate adaptive decision-making styles and decrease maladaptive styles in women survivors of domestic violence in experimental group.

H₅: There would not be significant positive changes in the adaptive emotion regulation, mindfulness, adaptive decision-making styles and psychological health in post-test in control group.

II. RESEARCH METHODS

Sample of the study

The present study was conducted in district Shivpuri of Madhya Pradesh (India). Women survivors of domestic violence (physical and emotional abuse may or may not be accompanied by sexual and/or economic abuse) who have been separated from their batterers since minimum three months or maximum two years (due to divorce, separation, ongoing case in the court) were drawn as the participants for the study through purposive and snowball sampling. Final selections were done with the help of NGOs- Tathagat Foundation and All World Gayatri Pariwar. Overall sixty participants joined the study. They were divided into experimental group (n=30) and control group (n=30). Initially thirty-six survivors joined the intervention and six were drop outs, three in the first week, two participants in second week, one participant could not complete the entire training.

Research design

This ex-post facto experimental design-based study was conducted in **three phases** – pre intervention test to get baseline data, mindfulness-based intervention and post intervention data collection.

Intervention

A six-week long mindfulness-based intervention combined with psychoeducation for emotion regulation and mental health was designed after pre-test to enhance mindfulness, promote adaptive emotion regulation, reduce maladaptive emotion regulation and reduce distress. Training included formal and informal practices, loving kindness meditation, creative visualization and short physical exercises. Researcher received the mindfulness foundation teacher training before designing the module for problems of Indian survivors.

Tools for Data Collection

1. Mindfulness

Cognitive and Affective Mindfulness Scale- Revised (CAMS-R) developed by Feldman, Hayes, Kumar, Greeson Laurenceau (2006) was translated in Hindi by researcher. The language of scale does not particularly belong to any meditational setting. Rather, it has been widely used in clinical settings to assess the impact of mindfulness-based interventions. The scale consisting 12 items to measure four dimensions of mindfulness i.e. attention, awareness, present focus and acceptance. The answer categories range from 1 (almost always) to 4 (almost never). The internal consistency of the CAMS-R is $\alpha = 0.74-0.77$.

2. Emotion Regulation

Emotion regulation strategies in domestic violence survivors were assessed on cognitive and behavioral levels with following instruments-

• Cognitive Emotion Regulation Questionnaire (CERQ)

The Cognitive Emotion Regulation Questionnaire (CERQ) was translated in Hindi to assess **what people tend to think after experiencing stressful events** (Garnefski, Kraaij & Spinhoven, 2001; Garnefski, Kraaij & Spinhoven, 2002). The CERQ consists of 9 scales with 4 items each and the answer categories range from 1 (almost never) to 5 (almost always). For each subscale score the 4 items are added for indicating the extent to which a certain strategy is used. The CERQ subscales for adaptive ER are- **refocus on planning, acceptance, positive refocusing, putting into perspective, positive reappraisal**. Maladaptive ER subscales are- **self-blame, catastrophizing, other blame, and rumination**. The psychometric properties of the CERQ have been proven to be appropriate with Cronbach's α ranging between .75 and .87.

• Behavioral Emotion Regulation Questionnaire (BERQ)

The Behavioral Emotion Regulation Questionnaire (Kraaij & Garnefski, 2018) was administered after translating in Hindi to assess **what people tend to do**

after experiencing stressful events in order to regulate their emotions. The BERQ consists of 5 scales with 4 items each and the answer categories range from 1 (almost never) to 5 (almost always). Adaptive emotion regulation subscales are- **seeking distraction, actively approaching, and seeking social support.** Maladaptive ER's are **ignoring and withdrawal.** The alpha reliabilities of all BERQ subscales were high, ranging from .86 to .93. The test-retest reliabilities of the scales were found to be very good, with values ranging from .47 to .75. Pearson correlations between the subscales ranged from -.13 (Seeking Distraction and Withdrawal) to .57 (Actively Approaching and Seeking Social Support).

3. Psychological Health Problems

The General Health Questionnaire-28 (GHQ-28); Goldberg, (1978) was administered after translating in Hindi, to assess the **level of somatic symptoms, anxiety, depression and social dysfunctions** of the participants. This scale is consisting of 28 items. Scoring is 0 (Never), 1 (rarely), 2 (often), 3 (always). Reliability coefficients have ranged from 0.78 to 0.95 in various studies.

III. RESULTS

Demographic profile

Descriptive analysis was applied to assess the demographic variables. In the present study age range of the participants was 19-39 years, mean age was 29.50 years. Among all participants 65% were residing with their maternal family and 35% were living independently. In which, 23.5% belonged to general category, 51.5% to OBC, 25% to SC category. 41.5% participants were unemployed, 58.5% were employed; among which 21.5% participants were illiterate, 58% had attended school and 20.5% had attended college. Overall, 28.5% participants belonged to low socio-economic status, 70% participants belonged to middle SES and 1.5% were from high SES.

Data Analysis

Analysis of pre and post intervention scores was done using non-parametric Wilcoxon sign -rank test, in SPSS 26.0 software.

IV. DISCUSSION

The objective of present study was to measure the effectiveness of mindfulness-based intervention on emotion regulation and psychological health problems of women survivors of domestic violence. Our first hypothesis 'mindfulness-based intervention would significantly promote level of mindfulness in women survivors of domestic violence in experimental group' has been significantly supported on the level of 0.01 along with no significant differences in control group.

The all four dimensions of mindfulness have been significantly enhanced during the training i.e., attention, present focus, awareness and mindful acceptance. Enhancement in mindfulness state is the target of every mindfulness-based intervention which goes hand in hand with improvements in mental health.

In connection to this finding, our second hypothesis which states 'mindfulness-based intervention would significantly decrease psychological health problems in women survivors of domestic violence in experimental group' has been significantly supported on 0.01 level. In accordance to previous studies emotional distress has been reduced through mindfulness-based interventions and other integrated therapies i.e. MBREBT, MBACT etc. Along with enhancement in mindfulness levels, emotional distress in its various forms has been reduced in six-week long intervention i.e., depressive tendencies (Boyle, Stanton, Ganz, Crespi & Bower, 2017). This increase in mindfulness has been reported in previous studies with sufferers of depression and social anxiety (Jain, Shapiro, Swanik, Reunsch, & Bell 2007); less mind wandering and better self-regulation with reduction in insomnia and somatic symptoms i.e., pain, gastrointestinal problems, hormonal disorders (Carlson, 2012). Thus, mindfulness practices may lead to better social functioning and public dealing as adaptive ERs – acceptance, positive reappraisal, putting into perspective help to view life from a new perspective. As shown in the figure 1.1, social dysfunction is the most prevalent mental health problem in the domestic violence survivors. Correlational studies show that mindfulness practice protects against the emotionally stressful effects of relationship conflict (Barnes, Brown, Krusemark, Campbell, & Rogge, 2007). Trait mindfulness is found to be inversely correlated with the ability to act with awareness in social situation and helps in efficiently expressing oneself in various social settings (Dekeyser, Raes, Leijssen, Leyson, & Dewulf, 2008). Mindful acceptance helps in inculcating non-judgemental attitude to start afresh and respond rather than react to any social stimuli or trigger of traumatic memory or anxiety for future of self or child.

The third hypothesis has been supported significantly on the level of 0.01. Adaptive emotion regulation strategies of experimental group have been significantly improved in accordance of previous studies. Various adaptive ER strategies are improved i.e. positive refocus, putting into perspective (Cognitive ER), actively approaching to situation (Behavioral ER). Role of MBIs in enhancing adaptive ER strategies is previously reported (Mahan, Swan & Macfie, 2018, Kaunhoven & Dorjee, 2021). Mindful acceptance is enhanced which denotes the **acceptance of own thoughts, emotions and behaviour.** Moreover, fMRI studies show increased activation in ER related areas as pre frontal cortex, with reduced activation in brain regions involved in the processing of emotional valence

and arousal after mindfulness practices (Lutz, Herwig, Opialla, Hittmeyer, Jancke et al. 2014).

Maladaptive ERs have been significantly reduced in experimental group. Hence, the fourth hypothesis is also supported. **Six-week long** mindfulness intervention helped in **reducing depressive symptoms and perceived stress** in stage III breast cancer patients (25yrs -50yrs age group); mediated by reduced rumination and enhanced self-kindness (Boyle, Stanton, Ganz, Crespi & Bower, 2017). Interestingly, app-based Mindfulness training also reduced anxiety, depression, fatigue, fear and other physiological symptoms in cancer patients (Subnis, Farb, Padelue,Specia, Lupichuk et al., 2020). Along with it online training helps in reducing PTSD symptoms (Lutz, Herwig, Opialla, Hittmeyer, Jancke, Rufe, Holtforth, & Brühl, 2022). The mechanism behind these changes in survivors may be based in widening of awareness and attention to focus on the emotional experience. This alteration may lead to mindfully attending to the momentary experience rather than rehearsing an upsetting memory of abuse or problems (Farb, Anderson, Irving & Segal, 2014). Enhanced self-compassion leads to embrace new beginnings as it helps in reducing anxiety, shame, guilt in IPV survivors (Tesh, Learman & Pulliam; 2013). Emotion regulation as a predictor of quality of social functioning (Eisenberg, Fabes, Guthrie, & Reiser, 2000) indicates to the connection that facilitated improvements in social functioning in participants.

Concluding the pathway from previous researches (Farb, Anderson, Irving & Segal, 2014; Kaunhoven & Dorjee, 2021)- **awareness, present focus and acceptance** helps in inhibiting **rumination**. Along with this, the **non-judgmental awareness** cultivates a sense of curiosity rather than revictimization, **reduces catastrophizing** and thus impacting **self-blame and others-blame**. It widens the scope for putting into perspective and positive reappraisal on emotional and cognitive levels. Thus, leading to **refocus on planning to actively approach and seek social support**, rather than **ignore and/or withdraw** from the stressful situation. Reduced rumination and enhanced positive reappraisal are the master keys to affect depressive symptoms and anxiety.

Fifth hypothesis, which is a null hypothesis, was partially supported as there was no difference in mindfulness levels in control group. On the other side, maladaptive ER strategies and emotional distress are also increasing in control group. This may indicate to the struggle to maintain adaptive emotion regulation in thoughts, cognition and actions. But due to ongoing challenges, emotional distress is increasing. In accordance to previous studies (Kelly & Garland, 2016) result indicates that they may need more efficient ways to inculcate adaptive ER and decrease maladaptive ERs to enhance mental health.

V. CONCLUSION

Noteworthy improvements in mental health and physical health of the participants were observed in the present study. Mindfulness based training designed for the needs of domestic violence survivors in India facilitated adaptive emotion regulation on both cognitive and behavioral levels. Intervention leads to emotional coping and sound mental health in survivors of domestic violence.

Limitations and suggestions

We designed a six-week long intervention module due to uncertainty of COVID-19 pandemic. Regular follow up, a routine of post intervention practice is a must to maintain the improvements. We could not include these segments in the study due to time and COVID-19 pandemic constraints. With more number of participants, replication of training based studies may help in standardizing tailor made empowerment training for survivors. Proper weekly, monthly follow up and revision practice sessions may help in stabilize the improvements and mitigating further maladaptive behaviors. This may stabilize the effects of intervention to prevent the get through in vicious cycle of negative emotions again & again.

Privacy and confidentiality

All the participants were informed about the purpose of research prior data collection. A written consent was taken from the participants before starting intervention. They were assured about maintaining the privacy and confidentiality.

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Tables

Table 01: Summary of Non -parametric Wilcoxon sign-rank test for level of Mindfulness in control and experimental group

Condition	Mean	Wilcoxon test	p-value
Control Pre-test	27.93	-0.625	0.533
Control Post-test	27.47		
Experimental Pre-test	25.3	-3.530	0.000*
Experimental Post-test	32.6		

Significant at *p<0.05, **p<0.01

The table no. 01 suggest that there was significant difference in level of mindfulness in experimental group on the significance level of 0.01 and no significant post-test difference in control group.

Table 02: Summary of Non -parametric Wilcoxon sign rank test for emotional distress and mental health problems in control and experimental group

Condition	Mean	Wilcoxon test	p-value
Control Pre-test	41.63	-4.007	0.000*
Control Post-test	46.87		
Experimental Pre-test	53.9	-3.828	0.000*
Experimental Post-test	41.77		

Significant at *p<0.05, **p<0.01

The scores in table no. 02 suggest that there were significant improvements in psychological health problems in experimental group on the significance level of 0.01 and problems were increasing significantly in control group.

Table 03: Summary of Non -parametric Wilcoxon sign-rank test for adaptive emotion regulation in control and experimental group

Condition	Mean	Wilcoxon test	p-value
Control Pre-test	58.97	-2.122	0.034*
Control Post-test	61.0		
Experimental Pre-test	72.53	-2.931	0.003*
Experimental Post-test	80.53		

Significant at *p<0.05, **p<0.01

The scores in table no. 03 denotes to significant increase in adaptive emotion regulation experimental group on the significance level of 0.01 and on the level of 0.05 in control group.

Table 04: Summary of non -parametric Wilcoxon sign-rank test for maladaptive emotion regulation in control and experimental group

Condition	Mean	Wilcoxon test	p-value
Control Pre-test	46.93	-2.178	0.029*
Control Post-test	48.93		
Experimental Pre-test	57.40	-4.011	0.000*
Experimental Post-test	45.87		

Significant at *p<0.05, **p<0.01

The scores in table no. 04 shows significant reductions in maladaptive emotion regulation strategies in experimental group on the level of 0.01 and increase in control group on the significance level of 0.05.

Figure

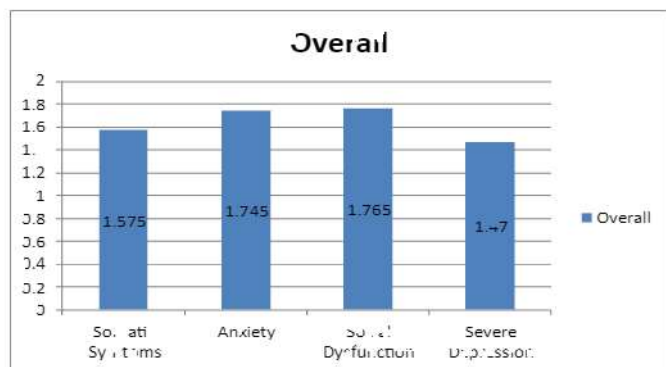


Figure 1.1: Pre -test Scores of both Groups on General Health Questionnaire

The figure 1.1, shows overall pre-test scores of experimental and control groups on GHQ-28, showing the level of various forms of emotional distress (in increasing order- severe depression, somatic symptoms, anxiety and social dysfunction).