



## The Effect of Mindfulness-Based Cognitive Therapy on Women with Depression: Changes in Early Maladaptive Schemas of Behavioral Mistrust and Abandonment Instability

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### Abstract

Few studies have examined the influence of cognitive therapy on schemas in women with psychological disorders. This study explores the effect of mindfulness therapy on early maladaptive schemas of behavioural mistrust and the abandonment instability of 60 women with depression who had been referred to a psychological clinic. The methodology of this study was quasi-experimental with pre-test and post-test design. All participants were randomly placed into experimental (30 individuals) and control (30 individuals) groups and answered Young's Early maladaptive schema questionnaire before and after the treatments. The experimental group received a cognitive intervention program based on mindfulness therapy during eight sessions (90 minutes). Covariance analysis was conducted, and the result indicated the positive effect of mindfulness therapy on the experimental group, not the control group. The result suggested that mindfulness treatment positively affects the early maladaptive schemas of behavioural mistrust and abandonment instability in women with depression.

**Keywords:** Mindfulness, Maladaptive Schemas, Mistrust and Abandonment Instability, Depression, Women

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Depression is one of the most common mental diseases and is known as the second most common reason for death in young people (aged 15 to 29) (World Health Organization 2020). According to the World Health Organization, depression causes long-term harms in different aspects of young individuals' lives such as academic, social, and familiar functioning impairments. Volatile behaviour and a lack of interest and excitement are some of depression's temper signs (Maxwell and Duff, 2016). According to previous studies, this mental disease is also associated with negative experiences such as feelings of sorrow and worthlessness or lack of self-confidence, which usually cause isolation and sleeping and eating disorders (Barua et al., 2011). According to the WHO, woman generally experience depression more than men, and Iranian studies have particularly suggested that women are more likely to become depressed than men, with a 30.5 and 16.7 percent chance respectively (Naderi et al., 2015).

According to previous empirical studies, early maladaptive schemas (EMSs) strongly predict depression in different ages (Dozois & Rnic 2015; Young et al. 2003; Halvorsen et al. 2010; Wang et al. 2010; Alba & Calvete 2019; Calvete et al. 2015; Orue et al. 2014). As Tariq et al. (2021) mentioned in their article, EMSs refer to "broad, generalized, dysfunctional patterns, comprising memories, emotions, cognitions, and bodily sensations about oneself and one's relationships with others" (Young et al. 2003, pg. 6-7). These developmental patterns from childhood to adolescence expand to an individual's whole life (Young et al., 2003).

One of the main schemas of early maladaptive schemas is the mistrust abuse schema. Individuals with this schema unconsciously expect others to betray them (Camara and Calvete, 2012), steal their property, chaff, disdain, insult, or misuse them. They believe that nobody is reliable unless proven. They are suspicious about others and always keep their distance from them (Dane and Marini, 2014). In their most optimistic state, they believe that everyone cares about themselves, and in their pessimistic state, they think that people are annoying and evil (Flynn, 2016).

Consequently, individuals with mistrust and abuse schema do not have close relationships with others, and they don't express their emotions to others (Ozer and Akgun, 2016). They do not share their thoughts and beliefs. They mostly believe that they will deceive others before others deceive them! They think that this strategy has a preventative aspect (Staats, 2018). Those with mistrust and abuse schemas are constantly evaluating others' reliability and have paranoid characteristics. This means that pessimism (Senormanci et al., 2014) and doubtfulness (Moed et al., 2015) are inseparable parts of their relationships (Kiel and Kalomiris, 2015).

One of the other schemas that damage emotional relationships is the abandonment and instability schema. Those with active abandonment instability schema (Colman, 2010) mostly feel insecure in their relationships and are constantly afraid of being abandoned by their partners (Thimm, 2010). They are always wary that the one whom they love will leave them and they will be alone (Khojavi and Izadikhah, 2018). Overall, it can be stated that these people cannot have a deep and close relationship with others (Davis and Humphrey, 2012) since they are afraid that their relationship will not continue the way they want (Camara, Calvete, 2012). Some of those with abandonment schema, being fearful of experiencing loss and being abandoned, prefer to live alone (Rohner, 2012). Many factors affect the creation of these schemas and principal beliefs, one of the most important of which is family education methods (Aqdasi et al., 2019). The most critical sign of abandonment schema is that these



individuals cannot have close and simultaneously committed relationships with each other, since the one those with such a schema is afraid of being abandoned (Pollock et al., 2016). In other words, the individual is in an undetermined relationship with a partner who, on one hand, consistently shows his love, but on the other hand, cannot commit to a permanent relationship or a specific label for it (Fledman et al., 2014). In addition, those with abandonment schema show extremist reactions to any gestures you make toward leaving the relationship (Jadidi et al., 2018).

One of the therapeutic approaches to these schemas is the mindfulness-based therapy (MBCT) approach, which was developed by Segal, Williams and Teasdale (2002). Mindfulness-based cognitive therapy means paying (Shamoli et al., 2018) particular and goal-oriented attention (Feldman et al., 2014) in the current state (Fix, 2013), without any prejudgments or judgments (Abbasi and Khademlou, 2018). In the mindfulness approach, the individual notices the mental process at every moment and learns the recognition skills of more beneficent methods (Potek, 2012). Two main methods are considered for the mind: one is doing, and the other is being. We learn in the mindfulness approach to move the mind from one way to the other (Teasdale, Segal and Williams, 2002). Mindfulness necessarily requires particular behavioural, cognitive, and metacognitive approaches for centralizing the attention process, which in turn, leads to the prevention of the reduction corkscrew of negative temper, negative thought, and the tendency toward anxious replies, and the growth of new approaches and creation of pleasant thoughts and anxieties (Rodriguez et al., 2016).

Mindfulness helps an individual take away from negative anxieties and helps them notice their daily activities through mindfulness-based practices and techniques (Schafer et al., 2017); it also allows individuals to detect the automatic performance of mind in the past and future world and control it by momentarily noticing thoughts, emotions, and physical gestures, thereby getting away from a daily and automatic mind focused on the past and future (Van der Giessen et al., 2014). In mindfulness, one notices his mental mode at every moment, and having seen the two ways of his mind (one as doing and the other as being), he learns how to move his mind from one method to the other, which requires learning particular behavioural, cognitive, and metacognitive approaches for centralizing the attention process (Du et al., 2015). Since mindfulness-based cognitive therapy considers both physical and mental dimensions, it effectively treats clinical disorders and physical diseases (Gehart, 2012).

Many pieces of research have indicated the effectiveness of mindfulness for schemas; Abbasi and Khademlou (2018) investigated the efficacy of cognitive therapy for the mindfulness of defectiveness/shame, and the mind rumination and social isolation of perfectionist women. They concluded that mindfulness-based cognitive therapy adjusted the defectiveness/shame schema, and reduced the mind rumination and social isolation of the experimental group in the post-test. It seems that mindfulness-based cognitive treatment had the desired effect of reducing perfectionism. Fix (2013) also investigated the impact of mindfulness-based therapies on aggression.

Only a few studies examined the impact of mindfulness therapy on schema and fewer on women in Iran. In light of this context, the present study seeks to answer the questions of whether the mindfulness approach affects the early maladaptive schemas, abandonment instability, and behavioural mistrust of women with depression or not. Based on previous studies (Abbasi & Khademlou, 2018; Fix, 2013), we hypothesize that mindfulness therapy

positively affects the early maladaptive schemas of behavioural mistrust and abandonment instability in women with depression.

## Method

### Participants and procedure

A total of 60 women with depression symptoms between the ages of 20 to 40 were recruited from a psychological clinic in Karaj. All recruited women completed a series of pre-tests and post-test questionnaires to measure Young's early maladaptive schema (Young et al., 2003). After completing the pre-test, participants were assigned randomly into two groups (30 participants to each): (1) an experimental group training over eight sessions, one session (90 minutes) per week, and (2) a waiting group. The experimental group received mindfulness-based cognitive intervention education for eight sessions of 90 minutes, once a week; the control group did not receive any treatments during this period. Intervention therapy was provided according to the mindfulness protocol of Baer's version (2006). The intervention program, along with two therapists, was evaluated to be appropriate for education.

After the ethical clearance was obtained from the university and the psychological clinic, informed letters of consent were sent to all participants. Once written and informed consent was obtained, the research team administered self-report pencil-and-paper tasks within a room in the clinic.

## Measures

**Young's maladaptive schema questionnaire (Young et al., 2003):** This questionnaire consists of 75 items to test 15 early maladaptive schemas: emotional deprivation, abandonment, mistrust, social isolation, social alienation, vulnerability to disease, entanglement, obedience, sacrifice, dependence/incompetence, hypercritical standards, superiority, and emotional inhibition. The subjects identify the correctness and incorrectness of each item about oneself according to the six-point scale beginning from 1. The internal conformity of the questionnaire was obtained from 0.83 to 0.96 through Cronbach Alpha for the score of the entire questionnaire, which was 0.50 to 0.82 using control/self-discipline coefficient in the non-clinical population (Abbasi and Khademlou, 2018). In the current study, the reliability of behavioural mistrust and abandonment subscales was 0.92 using internal conformity and Cronbach alpha.

**Table 1: Summary of Mindfulness: Data from Segal ZV, William JM, Teasdale JD.**

**Mindfulness-based cognitive therapy for depression: a new approach to preventing relapse. New York: Guilford press, 2002.**

| number   | Topic  | Objectives and Summary of Meetings   |
|----------|--|--|
| Session1 | The mental states of "autopilot" and "mindfulness," first-hand experience of | Raisin exercise: Participants eat a raisin slowly and focus awareness on sensations.   |
|          | mindfulness: the raisin exercise mindfulness practice: body scan             | Purpose: First-hand experience of mindfulness.   |
|          |  | Body scan: Participants focus attention and awareness on a specific region of the body (e.g., left foot) and then shift attention to another region. |

|  |   |  |
|--|---|--|
| Purpose: Learning a mindfulness practice to use on an ongoing basis. |   |  |
| Session <sup>۲</sup>   | Relation between thoughts and emotions, awareness of pleasant events Mindfulness practice: sitting Meditation | Practice: sitting Meditation: attention is focused on the breath, bodily sensations, or thoughts and emotions.<br><br>Purpose: Learning to practice mindfulness and use as an ongoing practice.  |
| Session <sup>۳</sup>   | Walking and stretching meditation   | Practice: 3-minutes breathing space, mindfulness stretching and walking awareness of unpleasant events.<br><br>Purpose: Attention is focused on the physical sensations of movement and the breath and a practice to use on an ongoing basis.  |
| Session <sup>۴</sup>   | Automatic thoughts “autopilot”  | Purpose: Automatic thoughts “autopilot” can lead to emotional distress.<br><br>Practice: Practice of meditation techniques learned previously.   |
| Session <sup>۵</sup>   | Sitting Meditation  | Sitting meditation on focusing on a difficult or stressful situation.<br><br>Practice: sitting Meditation: attention is focused on the breath, body sensation, or thoughts and emotions.<br><br>Purpose: Learning to practice Mindfulness and use as an ongoing practice.  |
| Session <sup>۶</sup>   | Thought are not fact.   | Thought are not fact using the 3-minutes breathing space in stressful situations.<br><br>Description: First takes stock of his/her current situation. What is going on? What am I thinking and feeling? Attention is then focused on the breath for about a minute followed by a minute of focusing attention on bodily sensations.<br><br>Purpose: A short meditation to use on an ongoing basis whenever one experiences unpleasant emotions or stress. The aim is to shift from the mental state of autopilot to mindfulness. |
| Session <sup>۷</sup>   | Relationship between daily activities and   | Relationship between daily activities and depression generate. Purpose and Practice: list of pleasure / mastery  |



|          |                     |  |
|----------|---------------------|--|
|          | depression generate | activities identifying replace triggers.                 |
| Session^ | Course review       | Practice: Keeping a long-term meditation practice going. |

## Results

All analyses were performed using SPSS version 24.0 (IBM, Armonk, NY). The results include descriptive (Table 2) and univariate covariance analysis (ANCOVA) (Table 3) analysis. Prior to conducting the ANCOVA, the relevant assumptions were checked (normality, linearity, and homoscedasticity), and no significant violence was found.

### Descriptive Analysis

The descriptive statistics presented in Table 2 show the mean and standard deviation of all variables. Results indicated that the average score of behavioural mistrust and abandonment schema was reduced in the experimental group in the post-test as compared with the control group.

**Table 2: Descriptive Study**

| Subscale            | Experimental Group |      |           |      | Control Group |      |           |      |
|---------------------|--------------------|------|-----------|------|---------------|------|-----------|------|
|                     | Pre-test           |      | Post-test |      | Pre-test      |      | Post-test |      |
|                     | Mean               | SD   | Mean      | SD   | Mean          | SD   | Mean      | SD   |
| Behavioral mistrust | 26.17              | 1.98 | 12.93     | 3.21 | 28            | 1.41 | 26.87     | 2.37 |
| Abandonment         | 33.65              | 5.16 | 13.63     | 7.13 | 66.37         | 8.76 | 62.23     | 7.28 |

### Univariate Covariance Analysis (ANCOVA)

The results of covariance analysis for investigating the effect of the intervention on the experimental group have been reported in Table 3. The results of univariate covariance analysis showed that participants' scores in the experimental group and the pre-test regarding the scales of behavioural mistrust schema,  $F(1,57)=26.63$ ,  $P<0.001$ , and abandonment,  $F(1,57)=93.92$ ,  $P<0.001$ , were reduced as compared to the control group.

**Table 3: The summary of the analysis of covariance**

| Sources                       | SS      | df | MS      | F      | P     | F    |
|-------------------------------|---------|----|---------|--------|-------|------|
| Behavioral mistrust post-test | 2166.08 | 1  | 2166.08 | 26.638 | 0.001 | 0.82 |
| Error                         | 459.6   | 57 | 8.6     |        |       |      |
| Abandonment post-test         | 1212.57 | 1  | 1212.57 | 93.92  | 0.001 | 0.62 |
| Error                         | 7358.19 | 57 | 129.09  |        |       |      |

## Discussion

The current research aimed to investigate the effect of mindfulness on early maladaptive schemas of behavioural mistrust and behavioural abandonment. The present findings support our hypothesis that mindfulness-based cognitive therapy positively affects the early maladaptive schemas of behavioural mistrust and abandonment instability in women with depression. The results of this research were in line with the results of the studies conducted by Jadidi and Mohammadabadi et al. (2018), Abbasi and Khademlou (2018), Maafi and Hassani (2017), and Qanbari and Masoodi (2016).

To make the results more precise, it can be stated that early maladaptive schemas are related explicitly with high psychoneurosis and low extroversion and agreement. Therefore, Calvete's idea (2013) could be adduced that psychoneurosis behaviours or negative affection are a factor for overall susceptibility or a susceptible temper, leading to the formation of early maladaptive schema, especially behavioural mistrust and abandonment. Learning the presence of mind helps individuals pay attention to neutral purposes by meeting emotional needs approaches and directing information processing resources and, like respiration or feeling the moment, provide conditions for the improvement of schemas. Therefore, paying attention toward this method prevents the increase or continuation of the emotion of shame and decreases access to deficient processing wheels. According to this view, the chance of expanding or continuing the shame schema decreases.

On the other hand, since attention is taken from intrusive thoughts toward elective concentration during the instruction of mindfulness, the individual becomes able to prevent secondary thought processes, emotions, and physical senses while facing various conditions that are excited during schemas so that behavioural mistrust and abandonment schemas are adjusted. In addition, mindfulness techniques aim to work on physical senses, emotions, memories, and mental images. Referees fight against maladaptive schemas through mindfulness techniques of emotional level, and they declare their shame for childhood events using mental imaging.

## Limitations

This study had several limitations; the number of participants was relatively small, and only one gender was considered. We did not measure the anxiety of participants, which is highly



related to depression. Thus, selected women could be at a high level of anxiety, not necessarily of depression. Finally, the sample of this study was chosen from a city in Iran, while more cross-cultural studies could illuminate the effect of mindfulness-based cognitive therapy considering the impact of gender and culture on early schema and depression.

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