

Investigating the relationship between mindfulness and emotion regulation strategies in married and single students in Tehran

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Abstract

Introduction: Emotions and the way to deal with them play an essential role in students' intimate relationships and contribute to the formation and continuation of these relationships. The purpose of this research was to investigate the relationship between mindfulness and emotion regulation strategies in married and single students in Tehran.

Research method: The current research method was descriptive and correlational. 250 students (166 men and 84 women) were selected by stratified random sampling among the students of Tehran Islamic Azad University, Research Sciences Unit. The measurement tools included Bayer et al.'s Five-Dimensional Mindfulness Questionnaire and Gross and John's Emotional Regulation Scale. SPSS-24 software and analysis of variance, Pearson correlation and multivariate regression were used to analyze the data.

Findings: The research results showed that there is a significant negative correlation between the suppression component as one of the components of emotional regulation and mindfulness. Also, there was a significant positive correlation between cognitive marketing component and mindfulness. The results of multivariate regression analysis also indicate that emotional regulation strategies are able to predict students' mindfulness.

Conclusion: In general, it can be concluded that emotional regulation strategies were important psychological elements in predicting mindfulness; also, the suppression of emotions leads to a decrease in marital compatibility in married students.

Key words: emotion regulation, mindfulness, students

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Introduction:

Most students in their academic and marital life face events that lead to feelings of anger, sadness, and other unpleasant emotions, and these problems occur in important areas of their lives that include emotional bonds (1). Mitchell (2) believes that students with troubled relationships often experience disturbed relationships and emotional turmoil. The ability to adjust the emotional response to such negative experiences in work, academic and marital relationships is often considered a useful ability in their adaptation. Emotional regulation refers to the processes through which people influence their emotions and the way they experience and express them (3) and includes strategies that people use to influence the content, mental experience and expression of emotions (4). Emotional dysregulation means an integrated structure of dysfunction that is described by processes such as intensification of emotional states, poor understanding of emotions, strong reaction to specific emotional states or sensitivity to them, and maladaptive control strategies of emotional events (5); Emotional regulation has been considered an important factor in successful interpersonal relationships and adaptive interactions; Therefore, it can be concluded that relationships create a wide range of emotions and therefore emotional regulation is important in the context of intimate relationships (6). In this, it should be mentioned the effective role of some psychological and emotional skills such as mindfulness and emotion regulation strategies that can help in increasing the ability of people in different areas of life, especially in the academic, professional and marital life of students.

Mindfulness is a non-judgmental and balanced sense of awareness that helps you clearly see and accept emotions and physical phenomena as they occur. The foundations of this concept can be traced back to the oldest Buddhist texts. Mindfulness is recognized as a goal of contemplative religions, especially Buddhism (3). Mindfulness generally refers to cognitive processes during which a mindful person focuses on the experience of feelings and events that are happening in or around him in the present moment. Mindfulness can be seen in opposition to a state such as mental preoccupation with memories, imaginations, programs, with worry and automatic behavior, in which attention is focused on something else (7). In other words, mindfulness involves adopting a non-judgmental attitude towards personal experiences that are ongoing from moment to moment, thus allowing a person to be less reactive and more accepting of these experiences (8). On the other hand, the lack of mindfulness causes constant negative self-talk that plays an important role in self-evaluation processes (9).

Although mindfulness can be increased through meditation or mindfulness-based training, it can be defined as a non-situational attribute and characteristic, perhaps the level and capacity of people to benefit from it is different, in fact, the term mindfulness can be defined as: 1) a psychological attribute, 2) intellectual exercise or 3) a certain state of consciousness should be defined (10). Mindful people perceive internal and external realities freely and without distortion and have a great ability to face a wide range of thoughts, emotions and experiences, including (pleasant and unpleasant). This cognitive structure should be distinguished from self-awareness and self-directed attention (7). The similarity of these structures is in the increased attention to mental experiences,

but the main difference is in their cognitive aspect; This means that drawing attention in self-awareness is influenced by the biases of self-centered thinking and is associated with self-judgment, but mindfulness is an unbiased attention and judgment about one's own aspects. Mindfulness has a positive relationship with mental and psychological well-being and mental health, while self-awareness is associated with a low level of psychological well-being (7).

In examining the role of mindfulness in emotion and mood, the results of Brown and Ryan's studies show that mindfulness is a predictor of self-regulation behavior and positive emotional states, and through the combination of vitality and seeing experiences clearly, it can create positive changes in happiness and well-being. Studies have shown that high levels of mindfulness are associated with emotional stability, self-efficacy, internal locus of control, self-respect, life satisfaction, and low levels of psychological distress, including depression, stress, worry, and social anxiety. The results of Marlatt's study show that mindfulness can reduce depression, stress and aggression directly and also through mediating variables and lead to an increase in mental health. In addition, Shapiro's research (8), in non-clinical population, shows that mindfulness improves positive affect, well-being and quality of life and reduces negative emotions, rumination, stress symptoms, anxiety, somatization, and aggression and avoidance behaviors. Also, the results of studies have shown that mindfulness can increase health and tolerance of stressors and negative emotions (11). According to the researches, it seems that mindfulness can improve people's well-being through the transformation and development of emotional intelligence and by encouraging people to accurately perceive emotions and regulate emotions (12). Among the most important recent studies conducted inside the country related to the attribute of mindfulness, the following can be mentioned:

Khormai, Kalantari and Farmani (13), in a research entitled Comparison of mindfulness components in patients with major depression, generalized anxiety and normal people, found that anxious and depressed patients have a weaker performance in mindfulness components than normal people, and therefore mindfulness-based treatments By emphasizing these components, they can facilitate the treatment process and also improve the symptoms of such patients. Hassan Nia and Foulad Cheng (14), in a study investigating the relationship between the learning environment and academic burnout through the mediation of mindfulness: structural modeling came to the conclusion that the perception of the learning environment on academic burnout, mindfulness on academic burnout, and the perception of the learning environment on mindfulness It has a direct effect. The research findings of Maleki, Mazaheri, Zabihzadeh, Azadi and Malekzadeh (15), on the topic of the role of the five big personality factors in mindfulness, showed that, except for agreeableness, four other personality factors (neuroticism, extroversion, openness, conscientiousness) predict They have been suitable for the structure of mindfulness. Nejati, Zabihzadeh, Nik Farjam, Naderi and Pournaqdali (16), in a study aimed at investigating the relationship between mind-reading and mind-reading based on the image of the eye, concluded that there is a significant relationship between the ability to read one's mind and mind-reading. One of the main issues in strengthening mindfulness is knowing different aspects of emotional

states such as recognizing, differentiating and regulating them. Therefore, it seems that the foundations of mind reading and mindfulness are common. One of the reasons for the increase in psychological and medical research about mindfulness is that it can define new dimensions of the mind-body relationship. Most researches have focused on evaluating the effectiveness of interventions based on mindfulness. Mindfulness-based intervention is a systematic and intensive approach that is used in order to acquire new types of control and wisdom based on internal capabilities for relaxation, attention, awareness and insight. The results of Shapiro's research (8) have shown that this type of intervention has been effective for the treatment of both psychological and physical symptoms.

Another variable, in addition to mindfulness, the use of which is highly important in improving students' performance and causes their success and progress in all fields, especially academics, is emotion regulation. Emotion regulation is a process that helps people in increasing, reducing or maintaining emotional, behavioral and cognitive components and as a result of having the skill of emotional regulation, people have the ability to express their emotions in an appropriate way and if they are involved in unpleasant emotions like feeling sad, they can reduce its intensity. People who have emotional regulation skills can reduce or control negative emotions well, and there is a significant relationship between emotion regulation with reducing self-harm and reducing symptoms of depression, anxiety and stress. The findings of the research, Salehi, Baghban, Bahrami and Ahmadi (17), in a study with the topic of the relationship between cognitive strategies of emotion regulation and emotional problems according to individual and family factors, indicated that two emotion regulation strategies, including considering it as a tragedy and Rumination can predict emotional problems. Also, removing ineffective strategies and teaching effective strategies for cognitive regulation of emotion is better to be considered as a part of intervention in emotional problems. Likewise, studies show that there is a strong relationship between high mindfulness and adaptive emotional regulation strategies, and a decrease in mindfulness is associated with emotional regulation problems (18). Although it appears theoretically, mindfulness by facilitating adaptive emotional regulation in turn reduces psychological distress and enhances interpersonal communication performance. However, few researches have been done in relation to the trait of mindfulness and emotional regulation strategies, so the present study was conducted with the aim of investigating the relationship between mind and emotion regulation strategies in married and single students of Tehran.

The current research was descriptive and correlational. The statistical population of the research included all the students of the Islamic Azad University, Research Sciences Unit, Tehran, who were studying in the academic year 2018-2020. To collect information, stratified random sampling was used, who participated in the research after obtaining consent. The sample size of the research was 269 students; the desired sample was obtained through the Morgan and Karji table. The data of 19 students were excluded from the review process due to incomplete or non-returned answer sheets. Finally, the data of 250 students (166 men and 84 women) were analyzed. The average age of the samples was 26.47 (average age of women 25.36 and men 27.57). 46 of the participants

were officially married. In terms of educational level, 85 people were undergraduate students, 125 were master's students, and 40 were doctoral students. Five-faceted mindfulness questionnaire and emotional regulation scale were used to collect data.

Five-dimensional Mindfulness Questionnaire (FFMQ): The five-faceted questionnaire of mindfulness was created by combining the items of 5 independent questionnaires related to the measurement of mindfulness to achieve individual tendencies to be mindful in everyday life using the factor analysis approach. These factors are measured through a 29-item self-report scale, and responses are coded on a five-point Likert scale ranging from "never or very rarely true" to "often or always true." This questionnaire has a separate score for each of the 5 subcomponents. It also has a total score (the sum of 5 sub-components). The test-retest correlation coefficients of the questionnaire in the Iranian sample are between 0.57 (related to the non-judgmental factor) and 0.84 (related to the observation factor). Also, the alpha coefficient was obtained at an acceptable level between 0.55 (related to the non-reactivity factor) and 0.83 (related to the description factor).

Emotional regulation scale: This scale was prepared by Gross and John (19) and consists of 10 items and two subscales of reappraisal (6 items) and suppression (4 items). The answers are based on a seven-point Likert scale from completely disagree (1) to completely agree (7). Cronbach's alpha coefficient was reported to be 0.79 for reappraisal and 0.73 for suppression, and 0.69 for the entire scale. The internal consistency coefficient of this scale at Milan University was obtained from 0.48 to 0.68 for reappraisal and from 0.42 to 0.63 for suppression. Correlation coefficients of cognitive marketing with the scale of positive emotions (0.24) and with negative emotions (-0.14) and suppression with the scale of positive emotions (-0.15) and negative emotions (-0.04) have been reported (19). This scale is standardized in Iranian culture. The validity of the scale is based on the internal consistency method with the Cronbach's alpha range (0.60 to 0.081) and the validity of this questionnaire is reported through the analysis of the principal matrix using Varimax rotation, the correlation between the two subscales (0.13) and favorable validity. (19). In the present study, the reliability of this scale (Cronbach's alpha) for the whole scale was 0.67.

Findings:

The demographic characteristics of the research participants are presented in Table No. 1. Also, the Kolmogorov-Smirnov test was used to check the normality of the distribution of each variable, and the results indicated that each variable was not significant at the $P < 0.01$ level.

Table (1): Demographic characteristics of research participants

Average age of male students	27/57
standard deviation	3/65
Average age of female students	25/36
standard deviation	3/26
Average age of all students	26/47
standard deviation	4/13

As seen in Table 2, there is a significant positive relationship between mindfulness and cognitive reappraisal strategy ($r=0.14$, $p<0.01$) and a significant negative relationship between mindfulness and suppression strategy ($r=-0.24$, $p<0.01/01$) that these results show that students with higher mindfulness use cognitive reappraisal strategy more and suppression strategy less. As a result, the research hypothesis that there is a significant relationship between mindfulness and emotional regulation strategies of married and single students in Tehran is confirmed.

Table (2): Mean, standard deviation and correlation coefficient of research variables

Variables	Average	standard deviation	Mindfulness	Re-evaluate	Quench
Mindfulness	74/119	14/40	1	-	-
Re-evaluate	25/50	6/49	0/16**	1	-
Quench	13/37		-0/27**	0/13*	1

Table (3): Multiple regression results of predicting mindfulness through emotional strategies variables

Regression steps	Variables	B	β	T	R	F
step one	Quench	-0/66	-0/27	4/19	0/07	26/09**
	Quench	0/73	-0/19	4/69	0/11	22/48**
Step two	Re-evaluate	0/31	-0/10	3/12**		

The findings show that to predict the variable of mindfulness, regression was done in two steps. Suppression and cognitive marketing variables are entered into the equation, respectively, and they determine 11% of changes in mindfulness.

Table (4): Correlation results of marital adjustment with emotional regulation and mindfulness

Variables	consent	Correlation	Agreement	affection	Total score
Quench	-0/23**	-0/19**	-0/21**	-0/34**	-0/31**
Re-evaluate	0/01	0/16**	0/6	0/02	-0/002
Mindfulness	0/33**	0/23**	0/24**	0/37**	0/37**

According to Table No. 4, the emotional regulation suppression component has a negative correlation with the dimensions of satisfaction, solidarity, agreement, affection and the total score of marital adjustment, all of which are significant at the $P<0.01$ level. But the reappraisal

component is only related to the correlation component of marital adjustment, in addition, mindfulness with the components and the total score of marital satisfaction show a positive correlation, all of which are significant at the $P < 0.01$ level.

Discussion and conclusion:

The purpose of the present study was to investigate the relationship between mindfulness and emotion regulation strategies in married and single students in Tehran. The findings of the research showed that mindfulness has a positive and significant correlation with the strategy of cognitive reappraisal, and on the other hand, it has a significant negative correlation with the suppression strategy. Also, regression analysis showed that emotional regulation strategies are significant predictors for mindfulness. The findings of the research are in line with the results of previous studies on the relationship between mindfulness and emotional regulation strategies (21-20-18).

Although there are still many debates regarding the precise determination of the components of mindfulness (7), the non-judgmental acceptance of emotions is one of the components that most researchers emphasize. Non-judgmental acceptance of emotions facilitates a healthy engagement with emotions (22) and allows a person to deal with their emotions without being overly involved (for example, without causing worry or rumination) and without ignoring them (for example experiential avoidance or suppression of thoughts) to experience and express them in a real way. In other words, instead of involving a person in trying to suppress, prevent or drown in emotions, mindfulness leads to a non-judgmental and adaptive acceptance (23) and provides access to emotional regulation strategies on a wider level. Being present without being judged can facilitate the formation of the attitude that many personal experiences are transitory in nature, so not all of them require a response. For example, looking non-judgmentally at many anxiety-causing inner feelings and considering them as fleeting feelings can reduce their threat and prevent the increasing experience of anxiety. It becomes unnecessary from them.

In addition, mindfulness creates less neural reactions in response to emotional stimuli and is associated with more activity in brain systems related to cognitive control of emotion, which in turn increases cognitive re-evaluation in the individual (18). Mindfulness removes habits and automatic thoughts and unhealthy behavior patterns from a person and therefore can play a key role in strengthening and strengthening behavioral regulation and reducing depression and anxiety. Mindfulness initiates processes that simultaneously optimize psychological functioning and reduce psychological distress. Mindfulness improves the ability to manage negative emotions by increasing familiarity with inner life and reducing reactivity to it, and this recognition of inner life can lead to effective coping with negative emotions. In general, each of the psychological and neurobiological mechanisms of mindfulness has an important role in emotion regulation processes.

The results of the regression analysis also showed that the emotional regulation strategies of suppression and mindfulness are predictors of satisfaction, agreement, solidarity, expression of affection and the total score of marital adjustment of married students, which was negative in the

role of suppression in various components of marital adjustment and positive in the role of mindfulness, so that the increase High suppression leads to a decrease in marital compatibility and high mindfulness leads to an increase in marital compatibility. These findings are consistent with the findings of Pakenham and Seamus (24), Barnes et al. (25), Fardis (26) and Heydari and Iqbal (27) regarding the role of mindfulness and emotional regulation in marital satisfaction of couples. Pakenham and Seamus (24) have reported that increasing mindfulness leads to an increase in couples' marital satisfaction. Also, Barnes et al. (2007) reported that mindfulness has the ability to predict romantic relationship satisfaction among college students. In the field of emotional regulation, Ferdin (26) reported that depression is a significant predictor of marital satisfaction, but in their research, the role of reappraisal in marital satisfaction was not investigated. Heydari and Iqbal (27) who have used emotional dysregulation questionnaire have shown that emotional dysregulation predicts marital satisfaction and has a negative effect on couples' marital satisfaction.

Ethical Considerations: After the necessary approvals and obtaining permission from the university, in order to complete the questionnaires, the goals and working methods were explained to all the people participating in the study, and their consent was obtained and they were assured that the results of the research will be available to them if they wish. They will be placed. Also, people were assured that they were free to participate or not participate in the research. People were assured that they can decide to withdraw from the research at any stage of the research and this will not have any negative consequences for them.

Limitations of the research: Like other researches, this research had limitations, and one of these limitations was the mental and emotional state of the students when answering the questions, which may affect the accuracy and accuracy of their answers, and this limitation was uncontrollable.

Conflict of interest: The authors hereby declare that this work is the result of an independent research and does not have any conflict of interest with other organizations and persons.

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