

## **The Effectiveness of Mindfulness Education on Emotional, Psychological, and Social Well-being of 12<sup>th</sup> grade students in Tehran**

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### **Abstract**

The aim of this study was to investigate the effectiveness of mindfulness education on emotional, psychological, and social well-being of 12<sup>th</sup> grade students in Tehran. The research method was quasi-experimental with pretest-posttest design and control group. The statistical population of the study included all 12<sup>th</sup> grade students of the 12<sup>th</sup> district of Tehran in the academic year of 2018 to 2019. 60 students who gained low scores in three dimensions of Subjective Well-Being Questionnaire of Keyes and Magyar-Moe (2003) were selected through random sampling method. The participants were assigned into 2 experimental and control groups. The experimental groups received a Mindfulness protocol in 8 sessions during 2 hours. After completion of the sessions, all the participants were re-evaluated. Data were analyzed through multivariate analysis of covariance. The findings showed that in the emotional well-being aspect, with the components of positive emotional affection ( $P < 0.025$ ,  $F = 17/80$ ) and negative emotions ( $P < 0.025$ ,  $F = 5/41$ ), in the psychological well-being, with the components self-esteem ( $P < 0.008$ ,  $F = 25.26$ ), life goal ( $P < 0.008$ ,  $F = 38.19$ ), environmental domination ( $P < 0.008$ ,  $F = 82.82$ ), relationships with others ( $P < 0.008$ ,  $F = 19.12$ ), as well as personal development ( $P < 0.008$ ,  $F = 87.38$ ), and in the social well-being aspect, admission and acceptability ( $P < 0.01$ ,  $F = 18.09$ ) and realism ( $P < 0.01$ ,  $F = 11.30$ ), there was a significant difference between the experimental and control groups and it can be concluded that the mindfulness education affects the improvement of psychological, social and emotional well-being components in the students.

**Keywords:** Emotional well-being, mindfulness, psychological well-being, social well-being

### **Introduction**

The changes that occur during adolescence are both confusing for the teenager and for parents. With the onset of puberty, rapid physical changes begin, and at the same time, cognitive and intellectual changes will also begin in adolescents, so that these changes will help them look and think the world as mature individuals. Adolescence is distressing and difficult for some people; because this stage of development causes fundamental changes in all aspects of the individual's life. The teenage stage is a period in which the identity of the person is formed and it is important that he/she has a good health.

Well-being is a category of phenomena that includes emotional responses of individuals and overall assessments of life, and has three dimensions

of mental, emotional and social (Swami, Weis, Barron, & Furnham, 2018). Psychological well-being has several components, including self-acceptance, orientation in life, environmental domination, positive relationships with others, and personal development. People with high psychological well-being experience positive emotions and are positively evaluated by incidents and events in their lives. While people with poor mental health experience their incidents and events unfavorably, they often experience negative emotions such as anxiety and depression (Diener, 2009).

One of the most important models that conceptualizes psychological well-being is the multi-dimensional model of Ryff and Singer (1998). This is one of the most important models of psychological well-being that considers well-being as a person's effort to promote his talents and abilities. In the Ryff model, the components of psychological well-being are as follows: First: personal development, which

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means the individual's ability to advance and improve own in order to become a full operation human, to achieve self-actualization and achieve goals. Second, Self-esteem; which is the main attribute of mental health and one of the components of optimal performance. Favorable levels of admission are lead to a positive attitude and an increase in life satisfaction; because the positive feedback of others plays an important role in self-confidence and individual beliefs (Weinberg & Gould, 2018). Third, Self-acceptance: it means that one can act and live on the basis of his own standards and beliefs, even if he is contrary to the beliefs and customs accepted in society; Therefore, a person who has such a way of life has the ability to live in loneliness. Fourth, Positive communication with others; it means that we have a relationship with quality and satisfaction with others. People with this feature are mostly affluent, friendly and capable people in loving others and they try to create a warm relationship based on mutual trust with others (Keyes, 2002). Fifth, Goal and orientation in life; it means that we have long-term and short-term meaningful goals in life; the targeted person is interested in activities and events of life, and is effectively involved with them; and Sixth, Environmental domination; another key to achieving well-being is the control of the surrounding world. It means that everyone must be able to dominate and surround his life and environment, and it depends on the person who shapes his environment according to his own personal characteristics and needs, and can hold it the same way (Keyes, 2002).

The third dimension of well-being is its social dimension; Keyes (2004) considered five components of correlation, affinity, acceptance and acceptance, participation and realism for the dimension of social well-being. He believed that the person who has these components can communicate in a satisfactory way with others in the community and meet their needs correctly. The results of the findings of some researchers (e.g. Swami, Weis, Barron, & Furnham, 2018; Warner, Kent, Trevino, Parsons, Zebrack, & Kirchhoff, 2016; Watkins, McLaughlin, & Parker, 2019) show that social well-being is associated with the feeling of vitality and inner satisfaction of the individual; In the sense, those who can establish appropriate communication and have an accurate and positive assessment of the surrounding environment and community also feel a sense of inner and heart satisfaction (Netemeyer, Warmath, Fernandes, & Lynch, 2017). Tennant, Demaray, Malecki, Terry, Clary, and Elzinga (2015) examined the role of the school environment and teacher-student relationships on emotional well-being, and concluded that emotional regulation was largely influenced by these

factors, and a good relationship with school staff could increase positive emotions in Student.

According to the definitions of well-being and its dimensions (psychological, social and emotional), the importance of this factor in the student for the effective development of education and communication, as well as helping to develop a healthy identity, it is necessary to pay special attention to it and try to improve it by training appropriate therapies . Since the existence of well-being in a person causes flourishing and growing, mindfulness education can play an important role in promoting it (Passandide & Abual-Maali, 2016).

The mindfulness is the unconscious attention to the experience of the present. From a therapeutic point of view, mental-based interventions increase the mindfulness of negative mood tolerance and cause a greater sense of well-being. Since the nervous mechanisms involved in knowing the creation of consciousness mindfulness are not well known, it seems that mindfulness education strengthens monitoring systems focusing on the brain. Hence, mindfulness can help get people rid of automatic thoughts, habits and patterns of unhealthy behavior and thus plays an important role in emotional regulation. Research has shown that mindfulness improves mood and mindfulness short-term training reduces fatigue and anxiety (Bögels, Hellemans, van Deursen, Römer, & van der Meulen, 2014).

Mindfulness can improve emotional well-being through mindfulness of the small differences between emotional experiences in the present moment (Roemer, Williston, & Rollins, 2015). The purpose of mindfulness is awareness of one's emotions in oneself and others, and the results have shown that the mindfulness is negatively related to the disturbance in the recognition of emotions (Baer, 2015). However, the relationship between mindfulness and the nature of emotional mindfulness is not well known. In addition, the mindfulness towards experiences and emotions, especially with their assignment as mental states can limit the rapid labeling of mental conditions in order to attract more aspects of the experience; In fact, another difference in individuality is the difference in the ability of concentration (Siegel, Sands, Van den Noortgate, Condon, Chang, Dy, & et al., 2018). This ability of concentration in people who respond quickly to their mental emotional state is less; therefore, rapid labeling of a mental state can cause a complete emotional experience to be misunderstood and limit the diversity of experience. So, if concentration is disturbed due to reactivity, the individual may not be able to distinguish between two emotional conditions; therefore, mindfulness can improve well-being and

emotional regulation by increasing the ability to differentiate emotional experiences (Roemer, Williston, & Rollins, 2015). Currently, many psychologists and counselors use mindfulness as an effective and practical intervention. Researchers who have benefited from this therapeutic intervention in student environments also indicate their effectiveness in these environments; For example, Passandide and Abual-Maali (2016) showed that cognitive-based therapy is effective in increasing the well-being of female students. Memar, Keshavarzi, Emamipour, and Golshani (2014) also showed that mental-based interventions can increase the emotional well-being of mothers and it also has a positive impact on the reduction of behavioral problems in students. McConville, McAleer and Hahne (2017) concluded that the teaching of the components of the mind can sometimes affect students' well-being and it causes their mental and psychological development. Bernay, Graham, Devcich, Rix and Rubie-Davies (2016) showed that education of mindfulness increases coping skills in students and increases social well-being in them; as a result of this training, communication skills such as, smile, talking, and hint also improved.

According to the results of the research and the importance of well-being in students and the effectiveness of mindfulness, it seems that the study of this therapeutic factor in all aspects of well-being should be done precisely and unequivocally which is not seen in previous research. It can create new angles and horizons for psychologists and counselors and focus their attention more on this factor; Therefore, the present study intended to examine the effectiveness of mindfulness education on psychological, social and emotional well-being in 12<sup>th</sup> grade students, and the question was whether the Mindfulness Education affects these components or not?

## Method

The present research applied a practical and quasi-experimental design with pretest-posttest design and control group.

## Participants

The statistical population of this study consisted of all 12<sup>th</sup> grade students (Secondary Secondary, 724994 students) in the 12<sup>th</sup> city of Tehran in the academic year of 2017-2018. Sampling method was used to select a sample of society. First, the 12th district of Tehran was selected as an accessible area, then, from all secondary schools, six schools were selected. All 12<sup>th</sup> grade students of these schools completed the Subjective Well-Being Questionnaire (Keyes &

Magyar-Moe, 2003). According to the cutoff point and considering that in the intervention research the sample size for each group is at least 15 people (Delawar, 2018), a total of 60 students who had lower grades in all three components (emotional well-being, Psychological well-being and social well-being) were selected as samples and randomly assigned to two experimental (30 people) and control (30 people) groups. The experimental group was subjected to training in 8 sessions during the 2 hours, while the control group did not receive any training during this period. Then, in order to investigate the effectiveness of mindfulness education sessions, both groups completed the questionnaire again. The criteria for entering the students in the study were: 1) Students who received low scores in all three components of Subjective Well-Being Questionnaire of Keyes and Magyar-Moe (2003), 2) No use of psychiatric drugs, 3) Students Studying in the academic year of 2017 to 2018; 4) Failure to receive any other educational program before and during the Mindfulness intervention. Also, exclusion criteria included: 1) absence of more than one session in mindfulness education sessions; 2) non-response to questionnaires; 3) participants' reluctance to continue their education sessions.

## Instruments

The research tool included the Well-Being Questionnaire of Keyes and Magyar-Moe, which was designed in 2003. The questionnaire has three aspects of emotional well-being (12 items), psychological well-being (18 items) and social well-being (15 questions). Emotional well-being: Questions of the positive emotions section (6 first questions) are combined with the questions of the negative emotions section (6 second questions) and the total score of emotional well-being is obtained. In fact, all questions of the negative emotions section, besides Question 5 of the Emotional well-being Scale, are, conversely, encoded and then merged together. Regarding the 1-5 rating for options at all, in this subscale, the minimum score is 16 and the maximum score is 56 (38). Psychological well-being: In this part, Questions 1, 2, 3, 8, 9, 11, 12, 13, 17, 18 were scored on the contrary and the total score of the components is the total score of psychological well-being. The components of psychological well-being include self-acceptance (Questions 1, 2, and 5), goal in life (questions 3, 7 and 10), environmental mastery (questions 4, 8 and 9), relationships with others (questions 6, 13 and 16) , Personal development (questions 11, 12 and 14) and autonomy (questions 15, 17 and 18). Social well-being

includes the components of social correlation (questions 1, 8, 12), social Continuity (questions 2, 6 and 11), social acceptance and acceptance (questions 3, 10 and 14), social participation (questions 4, 7 and 15), and Social Realism (Questions 5, 9 and 13).

In the Social Well-being Scale: Questions 3, 4, 5, 6, 11, 12 and 14 were scored in reverse. Regarding the evaluation of 1 to 7 for the options (I strongly disagree), I agree (very much) in both the sub-scales of psychological and social well-being and the minimum score in the sub-scales of psychological well-being of 18 and the maximum score of 126, and under the social well-being scale of the minimum score of 15 and the maximum score is 105. From the total score of emotional, psychological and social well-being, the score of mental well-being was obtained. This questionnaire was implemented by Golestani Bakht (2007) on 57 subjects and correlation coefficient of the subjective well-being questionnaire was 0.78 and its sub-scales included emotional well-being, psychological well-being and social well-being of 0.76, 0.64 and 0.76, respectively. The internal consistency coefficient based on Cronbach's alpha for the whole questionnaire was 0.80 and its sub-scales were 0.86, 0.80, and 0.61 respectively. Tamanaefar and Motaghedifar (2013) obtained 0.63 the coefficient

of internal consistency based on Cronbach's alpha for the whole questionnaire and its sub-scales are 0.25, 0.70 and 0.61, respectively. In the present study, reliability was calculated through Cronbach's alpha coefficient. The reliability of the subjective well-being variable was 0.82, the emotional well-being component was 0.66, the psychological well-being component was 0.71, and the social well-being component was 0.76, indicating a high internal consistency between the questions and the reliability of the mental well-being tool.

## Procedure

The structure of intervention sessions was based on the Stress Reduction Mindfulness Book (Kabat-zinn, 2005) and Chapter 15 introduces behavioral and cognitive behavioral therapies of the first and second generations, with emphasis on adherence and commitment therapy (Seif, 2016) as well as Dialectical Behavior Therapy Techniques Book (McKay, Wood, & Brantley, 2007). The plan was prepared by the researcher at 8 sessions of 2 hours and performed on experimental subjects. A summary of the content of each session is presented in Table 1.

**Table 1**

*Summary of the Content of the Mindfulness Educational Sessions*

Number	Title of the meeting	Conducted activities in meetings
1	Exit from auto guidance with the help of mind presence	Understanding and interacting with subjects, motivating them and committing them to continuing the program, and providing explanations about the philosophy of the curriculum and its causes, daily assignments, the importance of recognizing and applying the method of mindfulness and distribution of pamphlets.
2	Encounter with obstacles	Relaxation training, and checking the body, and dominance on the mind, studying the attitudes of the mindfulness educator, educating the conscious mind to breathe less stress.
3	The presence of mind from breathing	Focusing more on the emotions, thoughts and feelings of the moment from moment to moment, and being in the present moment by increasing the presence of the mind through breathing.
4	Stay in the present, prevent the severity and durability of stress	Seeing or listening with mindfulness to stay in the present, deliberate and deliberate focus of mindfulness on breathing, paying attention to all of your feelings and thoughts and expanding them, and accepting unpleasant thoughts and feelings to prevent the severity and durability of stress.
5	permission to presence	Intention to bring intentions and difficulties, and to accept and respond to unpleasant thoughts or feelings, and to strengthen the mental capacity to deal with unpleasant situations to reduce stress.
6	Confront with thoughts	Change the old habits of thinking, such as recognizing automated routine matters, being unmotivated to do things without result of works.
7	Self-care and be active	Mindfulness of stress warning signs for skillful handling with it.
8	Summing up the whole sessions and implementing mindfulness posttest	Conclude, repeat and review the contents of previous meetings, and use previous content to deal with the next mood.

It should be noted that the focal group method was used to determine the validity of educational protocols. In this way, 5 of the experts in the field of mindfulness

assessed the content, goals and time of the training sessions and confirmed their validity.

## Findings

The statistical methods used included descriptive statistics and inferential statistics methods. At the level of descriptive statistics, the mean, standard deviation, frequency was used to describe the existing conditions.

For analyzing the hypothesis of the research, multivariate covariance analysis was used for analyzing the inferential statistics to generalize the sample traits. SPSS 23 software was used to describe and analyze the data.

**Table 2.**

*Mean And Standard Deviation of Pre-Test and Post-Test Scores Of Two Groups in the Emotional, Psychological and Social Well-Being Variable*

Group membership the level	Experimental				Control			
	Pretest		Posttest		Pretest		Posttest	
	M	SD	M	SD	M	SD	M	SD
Emotional well-being	42/80	7/42	44/56	7/17	38/60	8/02	38/36	7/78
Positive affection	20/80	4/28	21/60	4/43	18/96	5/56	19/00	5/63
Negative affection	22/00	4/58	22/96	3/89	19/64	5/32	19/36	5/08
Psychological well-being	89/92	10/35	95/48	10/30	87/68	9/74	87/76	10/27
Acceptance of yourself	15/40	3/39	16/48	3/41	14/96	3/33	15/12	3/23
Goal in life	14/46	3/55	15/52	3/69	15/04	2/55	15/08	5/56
Dominate on the environment	14/88	2/27	15/84	2/28	14/60	2/56	14/76	2/66
Relations with others	13/12	3/35	14/20	3/55	11/96	2/83	11/76	2/93
Personal development	15/24	2/86	16/24	2/86	14/44	3/12	14/44	3/15
Autonomy	16/64	2/92	17/20	3/36	16/68	3/03	16/60	3/04
Social well-being	65/76	10/79	69/08	10/90	61/36	9/22	61/96	8/89
Correlation	12/88	2/57	13/68	2/71	11/64	3/36	11/60	3/47
Continuity	13/80	3/25	14/80	3/25	13/00	2/90	13/68	3/21
Acceptance	12/76	3/80	13/48	3/92	10/52	3	10/40	2/76
Partnership	13/36	3/54	13/60	3/29	13/88	3/16	14	3/32
Realism	12/96	3/82	13/52	4/07	12/32	3/74	12/28	3/72

Table 2 shows the mean and standard deviation of the pretest and posttest scores of the two groups in the subjective well-being variable and its components in two stages of measurement.

**The First hypothesis:** The mindfulness affects the components of emotional well-being in students.

Before testing the research hypothesis through using multivariate analysis of covariance, the assumption of normalization was examined by using the Kolmogorov–Smirnov test and this test was validated for both variables in both measurement steps in two groups with a significant level greater than 0.05. The assumption of

homogeneity of variances was investigated using F Levin's test and the results of this test showed that the assumption of homogeneity of variances in two components of emotional well-being was confirmed by a significant level greater than 0.05. The equivalence assumption of variance covariance matrices was also tested by the use of the M-box test and this test was confirmed with a significant level of 0.078. The slope regression assumption was also verified by means of variance test and it is confirmed for both variables with a significant level greater than 0.05.

**Table 3**

*Results of Multivariate Covariance Tests for Comparing the Mean Scores of the Two Groups in the Components of Emotional Well-Being*

Effects	Value	F amount	Degree of hypothesis freedom	Degree of error freedom	Significance level	Eta-square
pillai trace	0.34	12/03	2	45	0.001	0.34
wilks lambada	0.65	12/03	2	45	0.001	0.34
hotelings trace	0.53	12/03	2	45	0.001	0.34
roys largest rot	0.53	12/03	2	45	0.001	0.34

The results of Table 3 show that the difference between the two groups is significant in at least one of the two dependent variables. It means that the effect of

linear combination of 2 variables of positive and negative emotions in the two groups is significant with a significant level of 0.001.

**Table 4**

*Single-Variable Covariance Test Results in Multivariate Covariance Analysis for Comparing Two Groups in Emotional Well-Being*

Source of changes	Dependent variable	Sum of squares	Degrees of freedom	Mean of square	F	Significance level	Effect level	Statistical power
<b>Pretest</b>	Positive affection	1166.29	1	1166.29	3218.65	0.001	0.98	1.00
	Negative affection	634.53	1	634.53	97.23	0.001	0.67	1.00
<b>Group membership</b>	Positive affection	6.45	1	6.45	17.80	0.001	0.27	0.98
	Negative affection	35.33	1	35.33	5.41	0.024	0.10	0.62
<b>Error</b>	Positive affection	16.66	46	0.36				
	Negative affection	300.20	46	6.52				
<b>Total</b>	Positive affection	21923.00	50					
	Negative affection	23534.00	50					

The results of Table 4 show that after controlling the effects of pre-test, there was a significant difference between the two experimental and control groups in the positive affective variable ( $P < 0.025$ ,  $F = 17.78$ ). In the positive emotional variable, the moderate mean of the experimental group was (20.67) and the mean of the control group was (19.92). According to the results of covariance analysis and moderated averages, and due to the research constraints, we can say that Mindfulness can be effective in increasing the positive emotions of 12th grade students. Considering the size of the effect of consciousness, 27 percent predicted the variance of positive emotional variables. According to the size of the effect of consciousness, 27 percent predicted the variance of positive emotional variables. There was a significant difference between the two experimental and control groups in the negative emotional component ( $P < 0.025$ ,  $F = 41.5$ ). In the negative effect, the mean of the experimental group was (22.03) and the average of the control group was (20.28). According to the results of covariance analysis and moderated averages, and due to the research constraints, we can say that Mindfulness has been effective in improving the negative emotion of the eighth grade students. According to the size of the

simulation effect, 10% predicted the negative variance variable (The point to be made in interpreting the results of this component is that the higher a person's score in this component, the less the negative affection).

**The Second hypothesis:** Mindfulness education is effective on the components of psychological well-being in students.

Before testing the research hypothesis using multivariable covariance analysis, the assumption of normalization was studied by using the Kolmogorov-Smirnov test. This test was approved for all 6 components of psychological well-being in both stages of measurement in two groups with a significant level greater than 0.05. The homogeneity assumption of variances was investigated through using F Levin's test and the results of this test showed that the assumption of homogeneity of variances in all components of psychological well-being was confirmed with a significant level greater than 0.05. Equivalence assumption of variance covariance matrices was also confirmed by the use of the M-box test. This test was confirmed with a significant level of 0.83. The slope assumption of regression was also assessed using variance test and confirmed for all 6 components with a significant level greater than 0.05.

**Table 5**

*Results of Multivariate Covariance Tests for Comparing the Mean Scores of the Two Groups of Subjects in the Components of Psychological Well-Being*

Effects	Value	F amount	Degree of hypothesis freedom	Degree of error freedom	Significance level	Eta-square
<b>pillai trace</b>	0.85	35.30	6	37	0.001	0.85
<b>wilks lambada</b>	0.14	35.30	6	37	0.001	0.85
<b>hotelings trace</b>	5.72	35.30	6	37	0.001	0.85
<b>roys largest rot</b>	5.72	35.30	6	37	0.001	0.85

The results of Table 5 show that the difference between the two groups is significant in at least one of the six dependent variables. That is, the effect of linear

combination of 6 components of psychological well-being is significant in the two groups with significant level of 0.001.

**Table 6**

*Single-Variable Covariance Test Results in Multivariate Covariance Analysis for Comparing Two Groups in the Components of Psychological Well-Being*

Source of changes	Dependent variable	Sum of squares	Degrees of freedom	Mean of square	F	Significance level	Effect level	Statistical power
<b>Pretest</b>	Acceptance of yourself	329/24	1	329/24	649.67	0.001	0.93	1.00
	Goal in life	296/11	1	296.11	1297.02	0.001	0.96	1.00
	Dominate on the environment	231/36	1	231.36	2822.11	0.001	0.98	1.00
	Relations with others	429/84	1	429.84	317.19	0.001	0.88	1.00
	Personal development	293/84	1	293.84	2215.58	0.001	0.98	1.00
	Autonomy	430/91	1	430.91	514.74	0.001	0.92	1.00
<b>Group membership</b>	Acceptance of yourself	13.55	1	13.55	26.75	0.001	0.38	0.99
	Goal in life	8.72	1	8.72	38.19	0.001	0.47	1.00
	Dominate on the environment	6.79	1	6.79	82.82	0.001	0.66	1.00
	Relations with others	17.50	1	17.50	12.91	0.001	0.23	0.93
	Personal development	11.59	1	11.59	87.38	0.001	0.67	1.00
	Autonomy	4.92	1	4.94	5.88	0.020	0.12	0.65
<b>Error</b>	Acceptance of yourself	21.28	42	0.50				
	Goal in life	9.58	42	0.22				
	Dominate on the environment	3.44	42	0.08				
	Relations with others	56.91	42	1.35				
	Personal development	5.57	42	0.13				
	Autonomy	35.16	42	0.83				
<b>Total</b>	Acceptance of yourself	13036.00	50					
	Goal in life	12193.00	50					
	Dominate on the environment	12015.00	50					
	Relations with others	9009.00	50					
	Personal development	12241.00	50					
	Autonomy	14779.00	50					

The results of Table 6 show that after controlling the effects of pre-test, in the component of self-acceptance ( $P < 0.008$ ,  $F = 26.25$ ), the target component in life ( $P < 0.008$ ,  $F = 38.8$ ), the component of environmental mastery ( $P < 0.008$ ,  $F = 82.82$ ), the ratio of relationships with others ( $P < 0.008$ ,  $F = 19.12$ ), as well as the personal development component (with  $P < 0.008$ ,  $F = 87.38$ ), there was a significant difference between the two experimental

and control groups. In the acceptance component, the moderate average of the experimental group (16.34) and the average of the control group (15.25), the target component in the average moderate life of the experimental group (15.73) and the mean of the control group was (14.86), the component of mastery of the moderate average environment of the experimental group (15.68) and the average of the control group (14.91), and the component of the

relationship with the others were the moderated mean of the experimental group (13.59) and the moderate average of the control group was (12.36), the personal development factor was the average of the experimental group (15.84) and the moderate control group was (14.83). According to the results of covariance analysis and moderated averages, and considering the research constraints, mindfulness has been effective in increasing the 5 components of psychological self-esteem of students. Considering the effect size, the effect of mindfulness on the personal development component was (0.67). There was no significant difference between the two groups in the self-efficacy component ( $P < 0.016$ ,  $F = 88.5$ ). It means that mindfulness has not been effective on increasing the autonomy of 12th grade students.

**The Third hypothesis:** mindfulness is effective on the components of social well-being in students.

Before testing the research hypothesis using multivariable covariance analysis, the assumption of normalization was studied through using the Kolmogorov-Smirnov test. This test was approved for all 5 components of social well-being in both measurement stages in two groups with a significant level greater than 0.05. The assumption of variances homogeneity was investigated using F Levin's test and the results of this test showed that the assumption of homogeneity of variances was confirmed in all components of social well-being with a significant level greater than 0.05. Equivalence assumption of variance covariance matrices was also verified through using the M-box test. This test was confirmed with a significant level of 0.20. The slope regression assumption was also verified by means of variance test and it was confirmed for all 5 components with a significant level greater than 0.05.

**Table 7**

*Results of Multivariate Covariance Tests for Comparison of Mean Scores of Two Groups of Subjects in Social Well-Being Components*

Effects	Value	F amount	Degree of hypothesis freedom	Degree of error freedom	Significance level	Eta-square
pillai trace	0.51	8.36	5	39	0.001	0.51
wilks lambada	0.48	8.36	5	39	0.001	0.51
hotelings trace	1.07	8.36	5	39	0.001	0.51
roys largest rot	1.07	8.36	5	39	0.001	0.51

The results of Table 7 show that the difference between the two groups is significant in at least one of the five dependent variables. It means that the effect of

linear composition of 5 components of social well-being is significant in the two groups with significant level of 0.001.

**Table 8**

*Single-Variable Covariance Test Results in Multivariate Covariance Analysis for Comparing Two Groups in the Components of Psychological Well-Being*

Source of changes	Dependent variable	Sum of squares	Degrees of freedom	Mean of square	F	Significance level	Effect level	Statistical power
<b>Pretest</b>	Correlation	369.46	1	369.46	1435.81	0.001	0.97	1.00
	Continuity	291.50	1	291.50	112.58	0.001	0.72	1.00
	Acceptance	485.94	1	485.94	984.75	0.001	0.95	1.00
	Partnership	374.11	1	374.11	161.42	0.001	0.79	1.00
	realism	558.50	1	558.50	1133.70	0.001	0.96	1.00
<b>Group membership</b>	Correlation	5.43	1	5.43	21.12	0.001	0.32	0.99
	Continuity	0.62	1	0.62	0.24	0.62	0.006	0.07
	Acceptance	9.29	1	9.29	18.09	0.001	0.29	0.98
	Partnership	0.48	1	0.48	0.20	0.65	0.005	0.07
	realism	5.56	1	5.56	11.30	0.002	0.20	0.90
<b>Error</b>	Correlation	11.06	43	0.25				
	Continuity	111.33	43	2.58				
	Acceptance	22.09	43	2.31				
	Partnership	99.65	43	2.31				



Source of changes	Dependent variable	Sum of squares	Degrees of freedom	Mean of square	F	Significance level	Effect level	Statistical power
	realism	99.65	43	0.49				
<b>Total</b>	Correlation	8510.00	50					
	Continuity	10656.00	50					
	Acceptance	7801.00	50					
	Partnership	10050.00	50					
	realism	9071.00	50					

The results of Table 8 show that after controlling the effects of pre-test, the correlation coefficient with (P <0.01, F = 1.21), acceptance and acceptability component with (P <0.01, F = 11.30), with the realistic component (P <0.01, F = 30.11) had a significant difference between the two experimental and control groups. The moderate mean correlation coefficient of the experimental group (12.99) and the average of the control group was (12.28), the acceptance and moderate acceptance of the experimental group was (12.40) while the moderate control group was (11.47), The moderate realism component of the experimental group was (13.26) and the average of the was control group (12.53). According to the results of covariance analysis and moderated averages, and considering the research constraints, the mindfulness education has been effective in increasing the social component of students' social skills. According to the effect size, the effect of mindfulness was 0.22 on Component of Social Correlation.

There was no significant difference between the two groups in social inclusion with (P <0/01, F = 0.24), as well as social participation component with (P <0.01, F = 0.20). It means that mindfulness has not been effective in enhancing the Social Continuity and Social Participation of 12th grade students.

## Discussion and Conclusion

The purpose of this study was to investigate the effect of mindfulness education on the components of psychological, social and emotional well-being in 12<sup>th</sup> grade students. The results of the statistical analyses using tests such as single variable and multivariate analysis of variance showed that the effectiveness of this program on the first hypothesis of both components; In other words, mindfulness is effective in increasing the emotional well-being (increasing positive affections and reducing negative affections). Researches done this area are also in line with the current research (for example, Baumeister & Vohs, 2004; Bluth & Eisenlohr-Moul, 2017; Duncan, 2007; Gross, 2007; Hülshager, Alberts, Feinholdt, & Lang, 2013; Nyklicek & Kuijpers, 2008; Stevenson, Millings, & Emerson, 2018; Weinstein, Brown, &

Ryan, 2009) also showing that mindfulness education affects emotional well-being and it can regulate affections.

In the explanation, we can state that emotional well-being or mindfulness-based emotional regulation is central to the change in the inner relation of one's self. Mindfulness has less emotional problems (emotional variability and emotional regulation disorder) (Creswell, Way, Eisenberger, & Lieberman, 2007). Mindfulness can improve emotional regulation by limiting reactivity. As a result, one of the characteristics of mindful individuals is less emotional changeability. In fact, it has been shown that mindfulness or its training was associated with fewer emotional responses than external strategy factors (Arch & Craske, 2010) and repetitive thoughts and as a result, it is expected that higher self-reported mindfulness is associated with lower emotional instability for positive and negative public emotions (Feldman, Greeson, & Senville, 2010). Also, mindfulness can improve emotional regulation by knowing the small differences between emotional experiences in the present moment (Erisman & Roemer, 2010).

The meaning of mindfulness is the level of awareness of an individual from emotions in himself and others (Ciarrochi, Caputi, & Mayer, 2003). For example, meditation improves awareness and emotional control through focus and attention that affects aspects of emotional responses (Goleman, 2003; Nielsen & Kaszniak, 2006). Therefore, it has been shown that self-reported mindfulness is positively associated with awareness scales such as emotional intelligence including emotional resolution and the ability to label their feelings (Brown, Ryan, & Creswell, 2007), and it has a negative relationship with emotional disturbance (Baer, 2006).

The results of the second hypothesis also showed that the mindfulness is effective in increasing the psychological well-being and its components (self-acceptance, goal orientation in life, domination on environment, positive relationships with others, and personal development). Researchers conducted in this field are in line with the present research (Auty, Cope,

& Liebling, 2017; Elliot, Gallegos, Moynihan, & Chapman, 2018; MacDonald, & Baxter, 2017; McConville, McAleer, & Hahne, 2017; Stewart & Haaga, 2018).

In this regard, it can be stated that the mindfulness with its effect on each component can provide the promotion of psychological well-being. Mindfulness through the acceptance of past and present, and orientation towards the future (Heedman, 2008) and somehow the promotion of self-awareness and self-esteem can make a person feel satisfied with the evaluation of his talents, abilities and activities and can have a satisfactory psychological function. Self-esteem is the main characteristic of mental health and one of the components of optimal performance (Ryff, Keyes, & Shmotkin, 2002), which can lead to a positive attitude and increase satisfaction of life through acquiring acceptable levels of admission, (Ryff, 1989).

In the purposeful component of life, Mindfulness can cause a person to pursue his goals and hope for life by creating the ability to find meaning and orientation in life and having purpose and following them, and thereby enhance his psychological well-being (Allan, Bott, & Suh, 2015). Another key to achieving well-being is under the control of the surrounding world. It means that everyone must be able to dominate his life and surroundings to a large extent, and this depends on the person shaping his environment in accordance with his own personal characteristics and needs, and the ability to maintain it in the same way. Having control in life is a challenge that man faces to the end of his life. This aspect of well-being emphasizes on the need to create and maintain a desirable family and work environment for everyone. It is such an environment that brings the best to the person and his surroundings, and when we are in such an environment, we find that domination is the strongest manpower and ability. This model means the individual's ability to manage life and its needs. Therefore, a person who has a sense of mastery of the environment can manipulate, vary, and improve the various dimensions of the environment and its conditions as much as possible (Keyes, 2002). Mindfulness-based interventions provide individuals with increased self-awareness and ability to review behaviors so that they can master their behaviors and the environment and act realistically in the realization of their own affairs. Positive relationship with others also means having a relationship with quality and satisfaction with others; people with this feature are mostly affluent, kind and capable people in loving others and they try to create a warm relationship based on mutual trust with others (Keyes, 2002).

Therefore, in explaining the findings of this study, it can be concluded that mindfulness is a deliberate and non-judgmental consideration, since it is a quality of alertness, which means paying attention to the present moment; in the other words, we can say the experience is a pure reality without any explanation. Mindfulness makes it possible to understand the impact of negative emotions in life and to believe that they are not a permanent personality; therefore, this attitude leads to reflection rather than involuntary reactions to events, responses and reactions (Nieuwenhuijsen, Verbeek, de Boer, Blonk, & van Dijk, 2010).

In general, it can be acknowledged that students who are mindfulness of their daily activities and who are more familiar with their auto-minded features can develop momentary awareness in their social relationships. Mindfulness with a positive impact on social well-being through awareness of thoughts of beliefs can help them in social settings such as school to establish effective relationships with other students as well as teachers, thereby enhancing their academic achievement.

Based on the findings of the research, it is suggested that school counselors and psychologists apply this effective factor on the agenda according to the effect of mindfulness on various aspects of well-being and train it in the form of workshops to promote the well-being and health of students. One of the constraints of the present study was its statistical population. The statistical population of the study was only high school students, which may not be generalizable to students of other educational levels. Also, the use of only one tool (questionnaire) to collect information is another constraint of this study.

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