

## Perfectionism and Stressful Life Events as Vulnerabilities to Depression Symptoms in Students

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### **Abstract**

#### **Introduction**

The mood disorders such as depression are the most common mental disorders among individuals. In addition to, girls' students as a group at high risk are known for developing this disorder. The aim of this study was to investigate the role of perfectionism and stressful life events in predicting disordered depression symptoms among girls' students.

#### **Materials and Methods**

This cross-sectional study on 344 girl students of Tehran's high schools, who were selected by multiple cluster sampling, was conducted. Participants responded to the questionnaires of perfectionism of Besharat (2004), stressful life events of Lovibond and Lovibond (1995) and depression symptoms of Costello and Comrey (1967). Data were analyzed using Pearson correlation coefficient and stepwise regression.

#### **Results**

Results showed that there were significant internal correlations among perfectionism, stressful life events and depression symptoms ( $p < 0.01$ ). Also, stepwise regression analysis indicated that perfectionism and stressful life events significantly predicted, respectively, 19% and 34% of the variance of depression symptoms ( $p < 0.01$ ).

#### **Conclusion**

This study results suggest the importance of perfectionism and stressful life events in predicting depression symptoms and these factors can explain the high degree of variability of these symptoms.

**Key Words:** Depression symptoms, Students, Perfectionism, Stressful life events.

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## Introduction

Students are an important target group for encouraging a healthy lifestyle in the adult population (1). Prevalence of psychological distress among the students compared to the general population is higher (2). Students experience specific perturbations such as anxiety, depression, eating syndrome, substance abuse and physical symptoms (3). Researches show that nearly 7% of male and 14% of female students has depressive symptoms (4). Research on the etiology of depression indicates that it is caused by multi-dimensional causal and combination of biological, psychological and social factors (5). Studies show that biological factors such as abnormalities in chemical neurotransmitters (6), cortisol levels (7) and genetics (8), social factors such as stress and supporting levels (9) and psychological factors such as attribution styles (10) and personal characteristics (11) play a critical role in the etiology of depression. Depression is a risk factor for osteoporosis, metabolic syndrome, coronary artery disease, myocardial infarction, and it is the cause of all premature deaths (12). Perfectionism is a significant predictor of depression in students, the community and the psychiatric patients (13). Perfectionism as a multidimensional construct which includes inter-personal and intra-personal aspects has a significant impact on psychological adaptation (14,15). Perfectionism is a personality structure that reflects efforts to achieve high standards in performance and tendency of self-evaluation with a critical manner (16). Researches show that perfectionism is associated with psychological distress and suicide (17,18), anxiety and depression (16), psychosomatic disorders (19), increased risk of eating disorders such as anorexia nervosa and bulimia nervosa (20) and non-adaptive eating beliefs (21). Few researches has dealt with the relation

between perfectionism and depressive symptoms in non-clinical samples and this type of researches is undoubtedly important; in particular, non-clinical sample composed of students, can help our understanding of the disorder to identify factors that contribute to depression, and expand the interventions, assessments and targeted prevention programs(13). One of the studied issues in this research is to investigate the role of personality structure of perfectionism in predicting depression symptoms.

The role of daily stress in starting and maintaining a variety of mental disorders has been studied in the past few decades and majority of researches have focused on the relationship between daily stress and depression (22,23). Stressful life events can lead to behavioral and psychological harm, e.g. depression, and have a vital role in the relapse of this disorder (23, 24). Individuals who are stressed or depressed or who experience chaotic relationships are exposed to greater risk of health problems, compared with people who have less stress (25).

In attention to above materials, the aim of current research was to investigate the role of perfectionism and stressful life events in predicting depressive symptoms among girls' students. Regarding the fact that a few studies have directly examined this issue and the lack of experience in conducting such a study in Iran, this study is unique in its kind and has its own innovation in terms of results explanation.

## Materials and Methods

In the current research is used of a cross-sectional design. The study population consisted of 14-17 girl students in 9 public high schools in West of Tehran in three grades: first, second and third in 2013 year. After conducting a pilot study and using the  $r=0.2$ ,  $\alpha=0.5$ , the sample size was calculated, 344 Students. The

sampling method was a multi-stage random sampling method. After obtaining the necessary agreements and licenses, was referred to research unit of Tehran Education Office and then, the offices of education regions 1, 4, 9 and 18. In attention to the size of each region, and number of schools in each region, were selected the two public high schools. Then from each selected school, one class was randomly selected from each grade and all students in the class participated in the research. After a description of the research topic, a consent form was given to be completed by the parents and the students themselves. The used questionnaires in this research were:

- **Depression symptoms scale [Costello-Comrey (26)]:**

This 14-items scale was used to evaluate the participant's level of depression symptoms. The scale is comprised of 14 questions designed to evaluate an individual's self-reported symptoms. The items on this scale are scored using a one to nine Likert-type rating scale with two categories of responses ranging from *absolutely* to not *absolutely* and *always* to *never*. Items 1, 6, 7, 8, 9 and 10 of the depression items are reversed scored so that higher scores indicate the individual is experiencing higher levels of depression. Validity and reliability of the scale in the research of Ghorbani and et al. (27) have been confirmed. In this study, Cronbach's alpha coefficient was reported 0.78 and also has high validity. In the present study, reliability coefficient by Cronbach's alpha is obtained equal to 0.87.

- **Tehran multidimensional perfectionism scale [TMPS; Besharat (28)]:**

An original pool of 30 items is validated for the purpose of measuring perfectionism in Iranian population (28). Items consisted of statements that had previously proved in terms of assessing of the perfectionism. The three dimensions of the scale are: self-oriented perfectionism, other-oriented perfectionism, and community-oriented

perfectionism. Each sub-scale has 10 questions which are based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each subject in each of the sub-scales will get grades 10 to 50. The reliability of the scale by the Besharat (28) for perfectionism and its' subscales calculated using Cronbach's alpha for the self-oriented perfectionism 0.92, other-oriented perfectionism 0.87 and community-oriented perfectionism 0.84. In the present study, reliability coefficient was calculated by Cronbach's alpha of 0.78.

- **Stressful life events scale [Lovibond and Lovibond (29)]:**

The 7-point scale, its important application is the measurement of the severity of symptoms of daily stress and phrases such as difficulty in achieving peace, nervous tension, irritability and restlessness. It is based on 4-point Likert scale of 0 (never) to 3 (always) that the final score obtained of the sum of questions marks. The questionnaire's validity was evaluated by Samani and Jokar [quoting Fathi and dastani (30)] that was reported the test-retest reliability equal to 0.77 and Cronbach's alpha equal to 0.78. In the current study, reliability coefficient was calculated by Cronbach's alpha, 0.82.

In the current study, was used of descriptive statistics and the regression analysis for analyzing data. Data were analyzed using SPSS 15 software and  $p < 0.05$  was statistically considered significant.

## Results

In this study, 37.26 percent (n=128) of the students in the first grade, 30.11 percent (n=103) in the second grade and 32.63 percent (n=113) in the third grade were enrolled. The mean age was 15.11 years. Mean, standard deviation and

internal correlations of variables under study are presented in (Table.1).

**Table 1:** Mean, Error Standard and internal collections of variables

	$\bar{X}$	SD	Correlations		
			1	2	3
1. Stressful life events	28.05	9.13	1		
2.perfectionism	88.48	8.22	0.16**	1	
3.Depression symptoms	47.24	10.98	0.58**	0.44**	1

As can be seen, there were significant relationships among perfectionism, stressful life events and depression symptoms ( $p < 0.01$ ).

To assess the predictive power of depression symptoms by perfectionism

and stressful life events variables were used of the stepwise regression analysis. The results of model summary are presented in (Table.2).

**Table 2:** Summary of regression analysis model

Variable	R	R <sup>2</sup>	$\Delta R^2$	$\Delta F^2$	Sig.
Step 1: Stressful life events	0.59	0.35	0.34	181.34	.000
Step 2: Stressful life events and perfectionism	0.69	0.47	0.13	82.11	.000

The results of regression model for explaining depression symptoms based on perfectionism and stressful life events indicated that F-statistic for both models is significant in  $p < 0.001$ . Therefore, there

was the explanation possible of depression symptoms based on both variables. In table 3, the regression coefficients of stepwise regression analysis are presented.

**Table 3:** Summary of stepwise regression analysis to predict depression symptoms based on perfectionism and stress life events

Variable	$\beta$	B	SE B	T	R <sup>2</sup>	Sig.
Stressful life events	0.53	0.44	0.03	13.42	0.34	.000
Perfectionism	0.36	0.33	0.036	9.06	0.19	.000

As can be seen, stressful life events variable with  $\beta = 0.53$  can significantly predict almost %34 of the variance of depression symptoms. Also, perfectionism variable with  $\beta = 0.36$  can significantly predict almost %19 of the variance of depression symptoms.

## Discussion

The results of this study showed that perfectionism variable can significantly predict depression symptoms among girls' student. These results are consistent with previous findings (31-34). Noble and et al. (34) concluded that maladaptive

perfectionists had the highest levels of depression symptoms rather than nonperfectionists. These findings can be interpreted in terms of the following possibilities: Self-oriented perfectionism represents the internal structure of the individual, which requires the person to be complete and perfect. Other-oriented perfectionism reflects the structure of interpersonal including unrealistic expectations and rigorous evaluations of others. Community-oriented perfectionism indicates interpersonal structure and in this case the perception of the person arises that others are demanding a complete person (35, 36). In fact, it can be said that

people with perfectionist desires, are ready to react with grief against anything which is imperfect or does not meet their extremely high standards. This would lead to negative emotions. People with perfectionist desires believe on their surrounding environment and also they must be absolutely perfect. They strive to be the best and to reach their ideals and avoid any mistake. Such people often have wrong interpretation of minor routine events and they count them as personal failures. These failure experiences often lead to the belief that individual's efforts have had no effect, and he was not good enough to meet his expectations or of others. Perfectionism is sense of the difference between actual and ideal self or achieve high goals and standards that, in particular, it is leading to vulnerability to negative emotions in the depression of failure (37). Perfectionism desires are relies on self assessment that depends to the continuous tracking of personal standard and ability to support the required standards. Excessive concern over mistakes is seen in people with perfectionism features; these facilitators are: interpersonal conflicts (viewing themselves as part of the expectations of others), low interpersonal esteem (feeling rejected by others, civil unrest and being despised by others), feeling depressed (feeling miserable and sad). Other studies involving clinical samples have shown that perfectionism is significantly linked with depressive symptoms (38-42), which is coordinated with the current study result.

Also, the results of this study showed that stressful life events significantly predict depression symptoms. It is consistent with the findings of previous studies (42-44). Lee and Ham (44) showed that various stressful life experiences are important environmental factors enhancing the sensitivity of some individuals to psychiatric disorders such as depression. This finding can be interpreted in terms of

the following possibilities: the relationship between daily stresses and depression is clearly accepted in the general population. In fact, depression can be considered a response to stress. Stressful life events are considered a precursor to depression (45). The perception of stress is an important influencing variable in causing depression. Hewitt and et al. (46) showed that perceived stress predicted depression. In clinical samples from patients with depression, perceived stress was associated with more severe depression symptoms. Perceived stress, as output related to the level of stress experienced, is considered as a function of objective stressful events that are the result of two factors of stressors assessment and coping resources (47). Research shows that daily stress is associated with risk factors for the onset of depression (23). Stress-depression studies are evaluated effects of stressful life events to predict depression (22, 23, 48). The research indicates nearly 70% of the depression courses begin by a severe stressor or stressful events, which play the role of cause about 50-20% of depression courses (49). The model of depression-stress suggests that the characteristics and behaviors of depressed individual often help to develop stress (50). Research of this models supported in clinical samples, community, samples of adolescents and children (51, 52). In the division of the daily stress to interpersonal stress (stress related to conflicts and problems with family members, peers and other important people) and non-interpersonal stress (stress-related health issues, employment and training), first group, more likely predict depression courses than non-interpersonal stress (53). Lia and et al. showed that it is essential that be identified early chronic stress in children. Levels of stressors should be monitored, as highly stressed youth have difficulties recovering and may need help. Interventions should be tailored for children with chronic stresses and depression symptoms (54, 55).

The studies of Zhou and et al. (56) and Raffaelli et al. (57) showed that providing support from different sources (family, friends, and significant other) may have a protective effect in preventing perfectionists from experiencing depression and the negative effects of stress.

## Conclusion

In summary, the present findings suggest that stressful life events and perfectionism can significantly predict depression symptoms among high school girls. The findings of this study will expand previous research on the relationship between stressful life events and perfectionism with depression symptoms in non-clinical sample of females and in line with previous research, play the important role in improving our understanding of the role of personality characteristics in etiology, course and depression symptoms preservation. Also, it can be useful in identifying mediated and moderated variables in relationship between perfectionism and stress with depression symptoms. Accordingly, it can be referring to two categories of practical and theoretical implications: at a practical level, though the majority of people with depression have reported recent stressful events, but only a few have experienced stressful events and are depressing. This suggests that other variables may moderate or mediate the relationship between stress and depression. At the theoretical level, the findings of this study can help to enrich current theories of personality and depression symptoms. This study is required replication and experimental confirmations because of its novelty in the Iranian cases. Until then, the findings should be interpreted with caution. Similarly, sample (group of students) and research (correlation) are discussed the limitations of findings generalizability, interpretation and causal attribution and

should be considered. Furthermore, the limitations of self-report measures in this study should not be ignored.

## Conflict of interests

The author have no conflicts of interest.

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