

Prediction of the perfectionism by proposed model for abnormal personality dimensions

Reza Abdi¹, Gholamreza Chalabianloo¹, Afsaneh Joorbonyan¹

¹ Department of Psychology, Faculty of Education and Psychology, Azarbaijan Shahid Madani University, Tabriz, Iran

Submitted: 29 June 2015

Accepted: 11 September 2015

Int J Behav Sci. 2015; 9(3): 210-214

Corresponding Author:

Reza Abdi, PhD

Department of Psychology

Faculty of Education and Psychology

Azarbaijan Shahid Madani University

Tabriz

Iran

E-mail: R.abdi@azaruniv.ac.ir

Abstract

Introduction: The aim of this study was to investigate the relationship between the dimensions of perfectionism and abnormal personality dimensions introduced in the fifth edition of Diagnostic and Statistical Manual of Mental Disorders, and to address this issue that to what extent each personality dimension can predict the dimensions of perfectionism.

Method: The present study is a descriptive and correlational study. The study took place on a sample of 270 individuals from the population of university students in Ramsar city. The participants were evaluated through two Tehran Multidimensional Perfectionism and PID-5 questionnaires. In this study, multiple regression was used to analyze data.

Result: The results showed that in addition to the correlation among all abnormal personality dimensions with the dimensions of perfectionism, negative effect can be a good predictor for self-oriented perfectionism and other oriented perfectionism; and also disinhibiting was found as the best predictor for socially-prescribed perfectionism.

Conclusion: Considering the importance of perfectionism and its role in many defects and psychiatric, physical, and social disorders; it is imperative that experts in research, prevention, and treatment take more efficient steps in leading this personality dimensions towards being more adaptive and normal.

Keywords: Personality, Diagnostic and Statistical Manual of Mental Disorders, Personality Dimensions, Perfectionism

Introduction

Perfectionism is defined as one's stable intention [1] to fulfill the expectations of oneself and others, with high quality and better than what the situation requires. It is also characterized as an intention towards perfect performance, setting high-level goals and critical evaluation of oneself [2]. In fact, perfectionism is similar to emotional characteristics such as anxiety which all human beings experience throughout their lives.

Hamachek [3] has divided perfectionism into two groups as abnormal and normal perfectionism based on reactions resulted from it. He distinguished between normal and neurotic perfectionism and believed that normal perfectionist enjoy competitiveness efforts for being excellent and at the same time recognizes personal limitations. This is while the neurotic perfectionist will never be satisfied with their performances because of unrealistic expectations and beliefs that they will fail to do well.

These people are inpatient and self-criticized but normal perfectionist, work hard and are motivated to achieve success and emphasizes high standards of performance in order to understand external facts and to accept limitations. But abnormal perfectionist is motivated by fear of failure and thus he is worry about achieving high and unrealistic goals [4].

Hewitt, Caelian and *Felt* [2] believed that abnormal perfectionism has three components which are presented

as three dimensions of perfectionism: Self-oriented perfectionism, other-oriented perfectionism, and socially

prescribed perfectionism. These dimensions are established as personality traits. This means that self-oriented perfectionism is individual efforts to achieve full self-identity according to extreme and precise criteria for critical self-evaluation and making sure of self-behavior and censorship of their own conduct. Other oriented perfectionism reflects intention for extreme expectations and critical evaluation of others (e.g., blaming others, setting unrealistic standards for others and strict assessment of others performance), including expectations and beliefs about the ability of others such as perfect tendencies of parents towards their children and community-oriented perfectionism including understanding and perceptions of others which are evidences of this fact that important people establish unachievable criteria for them and they are assessed differently. These people are usually under pressure for being perfect, and they are only satisfied when they meet their expectations.

Due to the inability of model of dimensions of normal personality, or the Five Factor Model (FFM) to explain and identify pathological traits, along with the introducing of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders DSM-5, Working Group of the personality provide an alternative model based on abnormal traits introduced in DSM-5 to achieve efficient levels of clinical pathology of personalities [5]. These considerations led *Krueger, Derringer, Markon, Watso* and *Skodo* [6] to write a flexible dimensional system based on 25vspecific personality traits which organized hierarchically in five areas of abnormal personality [7] which is a combination of the dimensional models of personality pathology which has focused on the abnormal characteristics [8].

As mentioned above, a common feature of the two present variables is comparative stability and on the other hand, both personal traits and perfectionism have effects on shaping behaviors. They have effects on welfare or vulnerability of a person.

So far by receiving supports from researches on the relationship between personality disorders and perfectionism and between personality factors and perfectionism, there is an assumption that abnormal dimensions of personality has a significant relationship with the dimensions of perfectionism and is largely able to predict these dimensions. During the previous years, researchers have tried to find features that contribute perfectionism [8, 9, 10, 11, 12] and result in mental disorders [9, 10, 11, 12, 13]. [20].

The aim of this study was that to examine whether there is there relationship between the abnormal personality introduced in proposed model of fifth edition of the Diagnostic and Statistical Manual and dimensions of perfectionism or not. Another aim of this study was to find out how much these dimensions can predict dimensions of perfectionism.

Method

The research design consists of description and correlation studying. The population consists of all

newcomer students of 2014 Ramsar azad University, a community of 270 students (130 boys and 140 girls) by clustering sampling based on college choice and voluntarily participation in this study. After completing satisfaction with participation, scale of measure of personality dimensions based on model proposed by DSM-5 i.e. the PID-5 questionnaire with Tehran perfectionism questionnaire were completed by students. The instruments used in this study were two questionnaires: Multi-dimensional Perfectionism Scale of Tehran (MPS-H); [21] which is a scale of 30 questions that measures self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism by five-point Likert scale. In the Persian form of scale, Cronbach's alpha coefficients of the scales of self-oriented perfectionism, other-oriented perfectionism, and socially prescribed perfectionism were $0.85 = r$, $0.79 = r$ and $0.84 = r$, respectively and was significant at $P < 0/001$ which is satisfactory retest reliability of scale. Alpha coefficients obtained in this study for each of these sub-scales were 0.68, 0.76 and 0.72, respectively.

The short form of the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders Personality Inventory DSM-5 (PID-5-BF); is another scale that is used to assess participants. The original version of the questionnaire contains 220 items by four scales which is developed by *Krueger, Derringer, Markon, Watso* and *Skodo* [6] to measure the dimensional model of personality traits of DSM-5 [6]. They studied its psychometric properties in the samples of the general population of patients and normal populations and scales from medium to high internal consistency (0.73 to 0.95) with an average of 0.86. Studies on factor structure of inventory have shown that its 25 scale are loaded highly by factors [23, 6]. These Second class factors are negative affect (e.g., Emotional Lability, Anxiousness and Separation Insecurity), detachment (Withdrawal, Anhedonia and Intimacy Avoidance), antagonism (e.g., Manipulativeness, Deceitfulness and Grandiosity), disinhibition (e.g., Irresponsibility, Impulsivity and Distractibility) and psychoticism, (e.g., Unusual Beliefs Experiences, Eccentricity and Perceptual Dysregulation) [6]. Psychometric properties and the factor structure of the short version of the inventory were studied in Iran after adaptation in college students. The results confirmed the fitness of the five-factor structure by a confirmatory factor analysis. Also, the total reliability is 0.86 and internal consistency of factors is reported between 0.76 to 0.89 [22]. Alpha value obtained in this study is 0.73.

Result

The statistical methods and indexes which were used to analyze data included mean, standard deviation, correlation and regression analysis. In Table 1, the mean and standard deviation of the abnormal dimension of personality and perfectionism are reported.

The relationships between the independent (predictive) variables and correlation criteria is studied through the Pearson correlation method and results are presented in Table 2. According to the results of the table, all the

dimensions of perfectionism are related to each other in a positive and significant way. This is while the negative effects positively and significantly ($P < 0/001$) correlates with all three dimension of perfectionism.

Detachment has high level of significant positive correlation with self-oriented and community-oriented perfectionism ($P < 0/001$), but there was no significant relationship between this dimension and the other-oriented perfectionism. As seen, disinhibition variable significantly correlated with self-oriented perfectionism and community-oriented perfectionism. Finally, the psychotic dimension has a positive and meaningful ($P < 0/001$) relationship with self-oriented perfectionism and community-oriented perfectionism.

After ensuring about meeting presuppositions of the multiple regression to determine the role of each predictor variables in prediction of perfectionism dimensions, the analysis was performed by using standard or concurrent methods. The results of these analysis are reported in table 3.

According to the results of table 3, the R-squared value that is equal to 0.11 which shows that among the mentioned dimensions, the negative effect can explain 0.11 variance of self-oriented perfectionism. Based on the beta value, negative effect has unique contribution to explain criterion variable. For other-oriented perfectionism, the R square explains 5 percent variance of other-oriented perfectionism. By looking at the beta, the negative effect provided only one part of the explanation

of the criterion variable. Finally, for the socially prescribed perfectionism, the disinhibition and then the antagonism are able to explain 38 percent of the variance on the basis of socially prescribed perfectionism. Beta also shows that the detachment has the highest share of explaining of the criterion variable, followed by antagonism and detachment respectively.

Discussion

The findings of the present study on the correlation between the abnormal five dimensions of personality variables and dimensions of perfectionism under self-oriented perfectionism, other-oriented perfectionism or social-oriented perfectionism suggest that there are significant ($p < 0/001$) correlations between self-oriented perfectionism and negative affect. These people who constantly expose to high-level goals experience negative emotions, such as dissatisfaction and unhappiness while failing to achieve their goals or during their efforts. These results are in line with *Stoeber's* findings [12].

For the relationship between self-oriented perfectionism and detachment personality trait in line with research [12, 24] a significant ($p < 0/001$) positive correlation was observed between them. It seems that these people with engaging in full-time work extremely and become away from their families so that opportunities to establish friendly relations and intimacy are lost. These people consider the others as cumbersome and a hindrance to achieve their goals as quickly as possible. The present study is in contrary to the findings of *Stoeber* [12] which found no correlation between self-oriented perfectionism and antagonism.

Table 1. Mean and standard deviation of normal personality and perfectionism

Indexes	SOP	OOP	SPP	negative affects	detachment	antagonism	disinhibition	psychoticism
Mean	31.31	31.97	31.38	6.01	4.94	4.37	4.55	5.29
Standard Deviation	5.86	28.6	1.38	3/00	3/02	2.85	2.78	2.84

SOP = Self-oriented perfectionism, OOP = other-oriented perfectionism & SPP= socially prescribed perfectionism

Table 2. Correlation between abnormal personality dimensions and dimensions of perfectionism

	negative affects	detachment	antagonism	disinhibition	psychoticism	SOP	OCP	SPP
negative affects	1							
detachment	0/27***	1						
antagonism	0/30***	0.31***	1					
disinhibition	0.41***	0.33	0/26	1				
psychoticism	0/46***	0.38	0.38	0.44	1			
SOP	0.32***	0.14***	0.06	0.14***	0.16***	1		
OCP	0/32***	0.08	0.09	0.07	0.05	0.46***	1	
SPP	0/21***	0.25***	0.26***	0.32***	0.23***	0.22***	0.35***	1

*= $P < 0/05$ **= $P < 0/01$ ***= $P < 0/001$

Table 3. Standard regression analysis between the dimensions of perfectionism and dimensions of normal personality

Predictor variables	Criterion variables	beta	t	sig	R ²	R	F	sig
negative affect	SOP	0.32	4.70	0.000	0.11	0.33	6.74	00/0
negative affect	OOP	0.24	3.50	0.000	0.05	0.23	3.16	00/0
antagonism	SPP	0.14	2.34	0.02	0.15	0.38	9.29	00/0
disinhibition		0.22	3.31	0.00				

The research by *Sarvghad, Barzegar* and *Balaghi* found no significant relationship between self-oriented perfectionism and agreeableness as the opposition dimension of antagonism [25] which is in consistent with the results obtained in this study. Disinhibition is a dimension which has correlated with self-oriented perfectionism. *Stoeber* showed that the perfectionist are not able to control their perfectionism tendencies and are constantly subjected to perfectionism acts, work, activity and customs and can't sit still, relax and usually do not give themselves a chance to rest [12].

Psychosis which is characterized by attributes, such as unusual beliefs and experiences, aversion and dysregulation of perception [26] has a significant ($p < 0.001$) correlation with self-oriented perfectionism. These findings are not compatible with the results of *Stoeber* [12]. The causes of the differences in the questionnaires can be used to assess perfectionism, but the study [27] which deals with the relationship between perfectionism and irrational beliefs confirms the findings of the study.

In regards to the relationship between personality dimensions and other-oriented perfectionism contrary to *Stabber's* findings [12], the results of this study only show a correlation between negative effects and this dimension of perfectionism. It seems that as everyone around perfectionist is not able to meet his/her expectations, especially unrealistic expectations, this rumination that others must be perfect and meet this demand makes perfectionist to experience negative effects. *Ayearst, Flett* and *Hewitt*, suggested that narcissism is associated with other-oriented perfectionism [28]. *Tritt, Ryder, Ring* and *Pincus* concluded that if narcissistic people do not fulfill their demands may be they often experience negative affects [29].

By comparing the two studies, we concluded that negative effects are caused by other-oriented perfectionism and can trigger a person's narcissistic disorder. On the other hand, it can be associated with Machiavellian traits of narcissistic people. Socially prescribed perfectionism unlike self-oriented Perfectionism has positive associated with all dimensions of abnormal personality that is consistent with results reported by *Stoeber*, [12] supports these findings. The relationship between socially prescribed perfectionism and negative effect is explainable by increasing socially prescribed perfectionism. In many cases these demands conflict the abilities, capabilities and qualifications of one so that person is unable to achieve goals and feels helpless and is usually upset by increasing others demands and experiences more negative effects.

The Abnormal Five Factor Model of personality describes antagonism by moods such as manipulation, deceit, fraud and grandiosity [6]. The present study shows a positive and significant correlation between antagonism and community- center perfectionism. It might seem logical that an increasing demand of others towards being a perfect person makes one antagonist to community after a short period of time or forces one to gather, cheat and deceive others for meeting needs. Correlation between socially prescribed perfectionism and detachment may

indicate that a person may be away from the community to gradually escape from the pressure of others for being perfect. *Stauber* (2014) examined this correlation with all items and concluded that socially prescribed perfectionism was related with insensitive, avoidance of intimacy, withdrawal and depression [12]. The findings of *Irets et al.* (2012) also showed that community-centered perfectionism can positively predict compulsive personality disorder [28].

The following research showed that socially prescribed perfectionism has a significant (0/001) correlation with antagonism [28]. A perfectionist may use perfection ideals of the community for two possible reasons. One reason is to escape from others' demands that puts people in a condition beyond his abilities. The second reason is that they may use this strategy as a defense mechanism to get rid of stress and anxiety due to high levels of others expectations. Disinhibition is characterized by impulsivity, risk-taking, confusion, and rigid perfectionism and distraction. Perhaps this correlation is due to the persons expectations which is way beyond his/her abilities. In other words, someone who shirk their duties and is distracted, believes that the others force him to do duties outside of his abilities. On the other hand, rigid perfectionism may encourage others to increase their expectations towards a person so the vicious cycle of unrealistic expectations and personal tendency harm the mental health of the individual. Obsessive-compulsive personality disorder may predict community- centered perfectionism positively [28].

A Person with psychoticism dimension holds unusual opinions and experiences and has unorganized perceptions. Those with such characteristics may be wrongly understood and also those around with their inappropriate expectations expand him psychotic traits magnifies psychotic features and this condition makes him sensitive. The results of the regression analysis showed that the negative effects can be a good predictor for their self- oriented and other-oriented perfectionism and it is worthy to mention that the best predictor for disinhibition is other-oriented perfectionism.

To conclude, it is clear that negative perfectionism from any category will interact with the physical and mental health. Negative affect is a variable that has a high positive correlation with all the aspects of perfectionism and this suggests that when a person internalizes perfectionism or has a high level of perfection expectations of others or others will lead him to perfectionism, he will experience negative affects anyway, Compared to the results of the study and explanation of similarities with previous research, we can say one of the critical effects of self-criticize is initiation of negative affects that findings of *Dunkley et al* (2008) has confirmed this finding. And also they concluded that self-oriented perfectionism is associated with depression, in turn, extraversion, openness to experience, agreeableness and conscientiousness are considered as positive aspects of personality and have negative correlation with self-oriented perfectionism [9, 10].

Perfectionism by reducing self-esteem [7] can develop a

person's intensity of negative effects, it seems self-criticism decreases self-esteem. If we look from the perspective of Adler we can conclude that a person who experiences complex of inferiority tries to remove it so that [30] as well as the *Corry, Green, Roberts, Frankland, Wright* and et al showed a positive relationship between perfectionism and self-criticism and may be another example is Dismorphic disorder body [18].

Finally, the negative affect resulted from mentioned factors or from rumination in perfectionist captured him in the trap of perfectionism [31]. As a result of this research we can say that a negative perfectionism as a personality factor not only put a personal risk of personality disorders such as obsessive-compulsive personality disorder [6.19], personality disorders Cluster C [13], antisocial personality disorder and clinical disorder such as body Dismorphic [19] eating disorders [17] depression [17, 2] anxiety [2] and the obsessive-compulsive [18, 16], but also hurt the person's physical health [32].

Conclusion

In summary, the purpose of this study was to investigate the relationship between the dimensions of perfectionism and personality dimensions proposed alternative DSM-5 model. The discussion is about pathological, negative or maladaptive perfectionism because the positive side of perfectionism focuses not only on the development of personality and mental health but also helps the individual to enjoy and satisfy achieved goals. These people enjoy working hard and they all do their best when they feel free [24]. The results showed that in addition to the relationship between perfectionism and maladaptive personality traits, some abnormal personality traits can predict the dimensions of perfectionism .By undermine mental and physical energy, thus the expert knowledge of this personality trait can be an important factor in prevention, diagnosis and treatment settings.

References

1. Frost RO, Marten PA, Lahart C, Rosenblate R. The Dimension of Perfectionism. *Cognitive Ther Res.* 1990; 14: 449-78.
2. Hewitt PL, Caelian CF, Flett GL, Sherry SB, Collins L, Flynn CA. Perfectionism in children: associations with depression, anxiety, and anger. *Pers Indiv Diff.* 2002; 32, 1049- 61.
3. Hamachek DE. Psychodynamics of Normal and Neurotic Perfectionism Psychology. *J Hum Behav.* 1978; 15:27-33.
4. Egan S, Piek JP, Dyck MJ, Rees CS. The Role of Dichotomous Thinking in Perfectionism. *Adv Behav Res Ther.* 2007; 45, 1831- 22.
5. Quilty LC, Ayeart LE, Chmielewski M, Pollock BG, Bagby RM. The Psychometric Properties of the Personality Inventory for DSM-5 (PID-5) in an APA DSM-5 Field Trial Sample. *Assess.* 2013; 20: 326-69
6. Krueger RF, Derringer J, Markon KE, Watson D, Skodol AE. Initial Construction of a Maladaptive Personality Trait Model and Inventory for Dsm-5. *Psychol Med.* 2012; 42: 1879-90.
7. Stump H, Parker W. A Hierarchical Structural Analysis of Perfectionism and Its Relation to Other Personality Characteristics. *Pers Indiv Diff.* 2000; 28: 837-52.
8. Dunkley DM, Sanislow ChA, Grilo, CM, Mcglashan TH. Validity of Das Perfectionism and Need For Approval In Relation To the Five-Factor Model of Personality. *Pers Indiv Diff.* 2004; 37, 1391-400.
9. Dunkley DM, Kyparissis A. What Is Das Self-Critical Perfectionism Really Measuring? Relations With The Five-Factor Model Of

- Personality And Depressive Symptoms. *Pers Indiv Diff.* 2008; 44, 1295-305.
10. Dunkley DM, Blankstein KR, Zuroff DC, Lecce S, Hui D. Self-Critical and Personal Standards Factors of Perfectionism Located Within the Five-Factor Model of Personality. *Pers Indiv Differ.* 2006; 40, 409-20.
11. Cruce SE, Pashak TJ, Handal PJ, Munz DC, Gfeller JD. Conscientious Perfectionism, Self-Evaluative Perfectionism, and the Five-Factor Model of Personality Traits. *PERS INDIV DIFFER.* 2012; 53, 268-73.
12. Stoeber J, Hutchfield J, Wood KV. Perfectionism, Self-Efficacy, and Aspiration Level: Differential Effects of Perfectionistic Striving and Self-Criticism after Success and Failure. *Pers Indiv Diff.* 2008; 45; 323-7.
13. Sherry SB, Hewitt PL, Flett GL, Lee-Baggley DL, Hall PA. Trait Perfectionism and Perfectionistic Self-Presentation in Personality Pathology. *Pers Indiv Diff.* 2007; 42: 477-90.
14. Sadat Rasooli S, Lavasani GH. Relationship between Personality and Perfectionism with Body Image. *Procedia Social and Behavioral Sciences.* 2011; 15: 1015- 9. [Persian]
15. Boisseau Ch L, Thompson-Brenner, H, Pratt EM, Farchione, TJ, Barlow DH. The Relationship between Decision-Making and Perfectionism in Obsessive-Compulsive Disorder and Eating Disorders. *J Behav Ther Exp Psychol.* 2013; 44, 316-21.
16. Sassaroli S, Romero Lauro LJ, Ruggiero G.M, Mauri MC, Vinai P, Frost R. Perfectionism in Depression, Obsessive-Compulsive Disorder and Eating Disorders. *Adv Behav Res Ther.* 2008; 46:757-65.
17. Corry J, Green M, Roberts G, Frankland A, Wright A, Lau Ph, Loo C, Breakspear M, Mitchell Ph B. Anxiety, Stress and Perfectionism in Bipolar Disorder. *J Affect Disorders.* 2013; 151, 1016-24.
18. Buhlmann U, Etcoff NL, Wilhelm S. Facial Attractiveness Ratings and Perfectionism in Body Dismorphic Disorder and Obsessive-Compulsive Disorder. *J Anxiety Disord.* 2008; 22:540-7.
19. Rasmussen SA, Eisen JI. Clinical Features and Phenomenology of Obsessive Compulsive Disorder. *Psychiatr Ann.* 1989; 19: 67-73.
20. Zarraty N, Khayer M. Predicting of Medical student's mental health based on subscales of perfectionism and negligence. *Dev Strategies Med Education.* 2012; 1: 1-10
21. Besharat MA. Tehran Multidimensional Perfectionism Scale construction and validation. *J Psychol Res.* 1386; 2: 49-67. [Persian]
22. Abdi R, Chalabianloo F. A preliminary study of adaptation and psychometric properties of the short form version of the Diagnostic and Statistical Manual of Mental Disorders of adult personality inventory fifth edition of DSM-5 (PID-5-BF). *J New Psychol Res.* Under PRESS. [Persian]
23. Wright AG, Thomas KM, Hopwood CJ, Markon KE, Pincus AL, Krueger RF. The Hierarchical Structure of Dsm-5 Pathological Personality Traits. *J Abnorm Psychol.* 2012; 12: 951-7.
24. Verdi M. The relationship between perfectionism and psychological hardness with mental health and academic performance in high school girl student [Dissertation]. Ahvaz; Shahid Chamran University of Ahvaz. [Persian]
25. Sarvghad S, Barzegar M, Balaghi T. The relationship between personality characteristics and dimensions of perfectionism and methods coping with stress in male and female marvdasht university students. *Journal of Women's Sociology.* 1390; 3: 81-101. [Persian]
26. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders;* 2013.
27. Flett GL, Hewitt PL, Blankstein KR, Koledin S. Dimensions of perfectionism and irrational thinking. *J Rational-Emotive Cogn-Behav Ther.* 1991; 9, 185-201.
28. Ayeart LE, Flett GL, Hewitt PL. Where is multidimensional perfectionism in DSM-5? A question posed to the DSM-5 personality and personality disorders work group. *Pers Disord: Theor Res/Treat.* 2012; 3: 458-69.
29. Tritt ChM, Ryder AG, Ring AJ, Pincus AL. Pathological Narcissism and the Depressive Temperament. *J Affect Disord.* 2010; 122: 280-4.
30. Stoeber J. Multidimensional Perfectionism and the Dsm-5 Personality Traits. *Pers Indiv Diff.* 2014; 64: 115-20.
31. Hill M, Hill D, Chabot AE, Barrall JF. A Survey of College Faculty and Student Procrastination. *College Student Personnel J.* 1978; 12: 256- 62.
32. Shirzadi A, Mehrabizadeh Honarmakd M, Haghighi J. A study of simple and multiple relationship between perfectionism, trait-state anxiety and depression with migraine headache in students of Islamic azad University of Ahvaz. *J Educ Psychol.* 2002; 4: 109-26. [Persian]