

## Self – Efficacy, Perfectionism and Personality Traits as Predictors of Academic Procrastination among University Students

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### ABSTRACT

The aim of present study was to investigate the relationship among self- efficacy, perfectionism dimensions and personality traits and to determine the role of those variables in prediction academic procrastination among female university students. A total of 320 university students were selected via cluster sampling. Data were collected using Multidimensional Perfectionism Scale (MPS), General Self- efficacy Questionnaire (GSFQ), NEO personality traits (NEO), and Procrastination Assessment Scale (PAS). To analyze the data descriptive statistics, Pierson Correlation and stepwise regression analysis were conducted. Results showed that Neuroticism have a positive relationship with academic procrastination and conscientiousness have a negative relationship with academic procrastination ( $P<0/01$ ). Also results showed that self- efficacy have a negative relationship with academic procrastination ( $P<0/01$ ). In addition, results showed that self-oriented perfectionism have a negative relationship with academic procrastination and social-oriented perfectionism have a positive relationship with academic procrastination ( $P<0/05$ ). Finally the combination of self- efficacy, self- oriented perfectionism and conscientiousness was significantly predictive 32 percent of the variance of academic procrastination among female university students ( $P<0/01$ ).

**KEYWORDS:** Academic Procrastination, Perfectionism, Self- efficacy and Personality traits

### INTRODUCTION

Negligence, supersedure or in another word “Procrastination” is one of the topics that has been at the center of the attention of researchers. Many of these researchers (e.g. Senecal, Koeestner &Vallerand (1995), Harriot & Ferrari (1996), Ferrari, Johnson, &McCown (1995), Farran (2004) ) Believe that each one of us have had experiences of procrastination in our personal lives making this complicated phenomenon an prevalent epidemic in human’s life. The term “Procrastination” is derived from the Latin (*prō crāstinus*) with pro meaning forward or forth and crastinus, meaning "of tomorrow" (Asif, 2011) and it means playing for time, stalling, delaying, putting off doing something, especially out of habitual carelessness or laziness or postponing needlessly (Rosario et al, 2009). In fact Procrastination, means that the person tries to do a task but s/he does not have the necessary motivation to accomplish it during the specific timing (Ellis &Knaus, 2002).

Procrastination has a variety of demonstrations due to its complex and different components, out of which academic procrastination can be mentioned. As evidenced in many studies, it is increasing amongst the students, and college students (Strand, 2009; Deniz, Tras & Aydogan, 2009; Lui, 2010) Academic procrastination emerges in the educational structures and settings (Lui, 2010) and it is the deliberate tendency to delay or non-accomplishment of the assigned academic tasks which has negative and painful experience (Senecal, Koeestner & Vallerand, 1995; Solomon &Rothblum, 1984)and it appears in the form of delaying activities such as studying and getting prepared for exams, writing the-end-of-the-term essays and completing the weekly assignments (Solomon &Rothblum, 1984).

Studies show that procrastination is linked to abnormal lifestyle causing serious personal problems and negative social consequences (Ressarrio et al, 2009) and consists of a wide range of negative results from low test efficiency and grades (Steel, Brothen&Wambach, 2001; Kladden, Ang, Chong &Krawchok, 2009; Steel, 2007) to negative effects on physical health and Personal productivity and welfare (Asif, 2011; Senecal et al, 2009) for those who choose this style. Since procrastination is a kind of trait with cognitive, behavioral and motivational components (Boffeli, 2007) , it seems that there is thousands of reasons for reckless behavior (Strand, 2011). So it is necessary to consider the factors affecting students’ procrastination to improve their quality of education. This study considers the variables that are believed to have an important role on Iranian student’s procrastination.

One of the variables is student’s self-efficacy. Self-efficacy is one of the fundamental mechanisms in social cognitive theory of Bandura. Bandura (1977) describes self-efficacy as the person’s attention to his beliefs or

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judgments about his personal ability to accomplish the tasks and responsibilities. This theory observes self-scrutiny as the basis for decision-making and also pays attention to human traits (Bong, 2001). Students vary in terms of the amount of self-efficacy. Some of them have a great self-efficacy in performing some tasks and suffer from low self-efficacy in other task accomplishments so they fail to do the task (Madux, 2002). One of the reasons behind people's lack of self-efficacy rely on the individual understanding of one's personal situation and being upset about weak performance in task accomplishment (Schwarzer & Scholz, 2005). Studies show a negative relationship between self-efficacy and procrastination; in which low self-efficacy has something to do with high procrastination and undone tasks (Haycock, McCarthy & Skay, 1998; Woul, 2004). Chu & Choi (2005) argue that students, who choose procrastination and consider it as a positive learning strategy, tend to have higher self-efficacy than those who consider procrastination as a negative behavior. Soe's (2008) findings indicate that students with self-efficient perfectionism show less procrastination than the others and self-efficacy helps them as a mediator. In their study Tuckman & Sexton (1992) come to the result that between external situations and self-management performance "self" relevant beliefs play their mediator role in a way that the lack of self-efficacy would cause academic procrastination.

Another variable which is supposed to be relevant to student's academic procrastination but not the necessary reason is perfectionism (Flett, Hewitt, Davis, & Sherry, 2004). Perfectionism is the tendency toward determining standards and ambitious goals for a person. The perfectionist people need high power and concentration to do their tasks. Time is valuable to them and they insist to accomplish their tasks to become prosperous in future; they pay more attention to ideal tasks and lack the insight to consider the required time to accomplish a task, so they spend a lot of time to do them (Boffeli, 2007). Almost 7% of procrastinate students consider perfectionism as an effective factor on procrastination (Ferrari, 1992). Flett & Hewitt (1992) demonstrated that perfectionism consists of three dimensions including: self-centered perfectionism, other-centered perfectionism and social-centered perfectionism. The self-centered perfectionist enjoys a strong motivation to become perfect and also unrealistic personal standards with all or nothing way of thinking about results containing full success. Other-centered perfectionism is an interpersonal dimension containing incentive to have perfectionist standards for those who mean a lot to the individual. Social-centered perfectionism is an idea in which people enforce unrealistic, exaggerated expectations to the individual satisfying which is difficult but the person should achieve the standards so that others would confirm and accept him. In a study Flett & Hewitt (1999) addressed these three dimensions of perfectionisms along with procrastination. The results of their study confirmed that only social-centered perfectionism is related to academic activities; So that Perfectionists who felt to be under pressure of the standards of others and society had more incentive to show procrastinated behavior than those who are not under such pressures (Sokolowska, 2009). Woloshyn (2007) has differentiated between the perfectionism of the perfectionists and non-perfectionists and pointed that the perfectionists because of the impossibility to do a task in an excellent manner and the related anxiety, refrain to do it.

The personal traits of the students are supposed to be related to their academic procrastination. Personal traits in a wide range have something to do with anticipating behavioral disorders (MacCare, 2004). In this study, in order to address students' personality, the Five Factor Model of Costa & McCrae (1992) is used. In the Five Factor Model the personal traits of the students are classified into five separate, non-overlapping factors of neuroticism, extraversion, agreeableness, openness to new experiences, and conscientiousness. Neuroticism includes having negative feelings like fear, anxiety, sense of guilt, depression, and rage. One of the characteristics of procrastinates is that they get easily excited and this makes them more anxious (Ferrari, 1998).

The extroverts are social, affectionate, active, talkative and adventurous. Adventure is one of the components of extroversion and refers to the effort to have new experiences and being involved with challenging tasks (Sokolowska, 2009). Regarding procrastination, seeking adventure might stop individual studying especially the boring lesson, but when this activity is considered challenging, people might follow in with the extra motivation (Ferrari, 2000). People who are open to the new experiences care about the internal emotional experiences and enjoy new theories and uncommon values. Agreeableness, humanism, being compassionate with other people and the motivation to help them are their characteristics (Costa & McCrae, 1992). Finally conscientiousness refers to perform according to one's conscience and includes: merit and competency, discipline and responsibility, trying to success, personal discipline and reflection and contemplation (Sokolowska, 2009). The studies have indicated that there is a negative relationship between conscientiousness and procrastination among university students, the more they tend to procrastination, the conscientiousness becomes lower, and the increase in one's conscientiousness reflects the students' conscientiousness and their commitment (Lee, 1990).

According to our discussion the general purpose of this study included to address the variables of self-efficacy variables, dimensions of perfectionism, and personal traits and defining their role in anticipating academic procrastination among university students. So regarding the purpose the following questions are set forward:

1. Which one of the variables of self-efficacy, dimensions of perfectionism, and personal traits is able to predict the variance of academic procrastination of students?

2. Which one of the variables of self-efficacy and personal traits is able to predict meaningful percentage of variance of self-oriented perfectionism among students?
3. Which of the variables of self-efficacy and personal traits is able to predict meaningful percentage of variance of society-oriented perfectionism among students?

## MATERIALS AND METHODS

### Method

The present research employed a descriptive-correlational method. The statistical population included all the female university students studying in the Allameh University in Tehran City (2012-2013) at the BA course, out of which our sample was selected through cluster random sampling. To do so, one school (Law and Political Science) was randomly selected from different schools, then after referring to the school it became evident that the number of students of BA course was 648. Then according to Morgan & Crichi (1979) chart a total number of 240 individuals were selected to attend in the study.

### Materials

1. Multidimensional Perfectionism Scale (MPS): This scale was created by Hewitt and Flett in 1991 which consists of three subscales that each one includes 15 items measuring the self, other and social perfectionism. Subjects make 5 point ratings of their degree of agreement with the items; The higher grades show more Perfectionism. In the present study according to the purposes of the research the self and social centered subscales are used. Most of the studies support multidimensional validity and consistency of the MSP scale among clinical, student, and public population (Hewitt and Flett, 1991; Hewitt et al., 1991). Cronbach alpha was reported to be 0.74-0.89 in this study and the subscales were in correlation with the components which were similar from the theoretical point of view and were not biased. Cronbach alphas for self-centered and other centered perfectionism were 0.80 and 0.72 showing a great internal consistency. In another research done by Besharat (2003) addressing Psychometrics traits in this scale among university students of Iran the Reliability coefficient of self-centered perfectionism is  $r=0.84$  and for society-centered perfectionism is  $r=0.80$ .

2. NEO personality inventory: This test was developed by Costa & McCrae (1992) and includes 60 items evaluating the five components of personality including neuroticism against emotional stability, extraversion against introversion, openness to experience, agreeableness against contrast, and conscientiousness or tendency to work. The subject presents his idea based on 5 point ratings of his degree of agreement with the items (from totally agree to totally disagree). This questionnaire is valid and reliable among the society of humanities students and Iran and with some minor changes presents the same achieved construct in European and American countries (Kiamehr, 2002). The Reliability coefficient using the internal consistency method in Iranian model for the factors A, O, C, E, N is 0.61, 0.54, 0.78, 0.76, and 0.79.

3. General self-efficacy questionnaire (GSFQ): This questionnaire was designed by Sharar in 2007 and includes 17 questions which are rated according to the Likert scale from 1 totally agree (5 points) to 1 totally disagree (1 point). The rating is 1-5; to the Items 1, 3, 8, 9, 13, 15 have the value of 1-5 and the grading of the rest of the items is vice versa. The maximum score is 85 and the minimum score is 17. This questionnaire is translated and validated by Barati (1996). The Reliability coefficient of the test using Gattman's split half method and Cronbach alphas reported 0.76 and 0.79. Also the resulted correlations with two scales of self-esteem and self-evaluation with self-efficacy were presented to confirm the Construct validity of the test (Barati, 1375; in quoted 1380). According to Cronbach alpha the reliability of the study is 0.86.

Procrastination Assessment Scale: This scale is designed by Solemon & Rothbloom (1984) and contains 27 items. In this scale there are four options for each item from rarely (1) to always (4); and except 11 items (2, 3, 5, 9, 11, 13, 15, 16, 21, 23, 25) other items are rated directly. The Cronbach alpha in Solemon & Rothbloom (1984) study for this scale is reported to be 0.64. Also using internal consistency validity the coefficient of 0.84 is considered as the validity index. In Hosseinchari & Dehghan-nasab (2008) "Predicting academic procrastination based on self-regulated learning strategies" to determine the mentioned scale's reliability and validity Cronbach's alpha and internal consistency were used in which the Cronbach's alpha of 0.79 was obtained.

### Findings

The linearity of the relationship between predictive and academic procrastination variables of students were checked. And 8 subjects out of 240 participated subjects in the study was eliminated from the equation because of their statistics being out of line. The descriptive indices of the research variables are presented in table 1.

Table 1. Frequency, mean and standard deviation of the research variables

Statistic indices	Variables	Number	Mean	Standard deviation
Academic procrastination		232	44.37	10.82
Self-efficacy		232	51.47	12.21
Self-centered Perfectionism		232	52.13	12.49
social-centered Perfectionism		232	46.92	11.58
Neuroticism		232	34.36	6.89
Extraversion		232	23.4	4.56
openness		232	37.13	8.63
agreeableness		232	27.4	5.08
conscientiousness		232	31.54	6.34

Table 2. Correlational matrix of self-efficacy, dimensions of perfectionism, personal traits and academic procrastination

Variables	1	2	3	4	5	6	7	8	9
academic procrastination	1								
self-efficacy	-0.34..	1							
self-centered perfectionism	-0/67.	-0.09	1						
social-centered perfectionism	0/51.	-0/01	0/34..	1					
neuroticism	0/47..	-0/24..	0/39.	0/02	1				
extraversion	0/02	0/31..	-0/07	-0/1	-0/53..	1			
openness	0/13	0/38.	-0/26.	0/11	-0/14	0/21.	1		
agreeableness	0/5	0/12	0/18.	0/29.	-0/39..	0/48.	0/09	1	
conscientiousness	-0/61..	0/21..	0/41.	0/11	-0/58..	0/42.	0/12	0/52..	1

P.0/01...P .0/05.

The results of table 2 shows that among personal traits, neuroticism, agreeableness and conscientiousness have positive meaningful relationship with self-centered perfectionism (P 0/05) and openness have negative meaningful relationship with self-centered perfectionism (P 0/05). Considering the relationship between social-centered perfectionism with personal traits it is evident that only agreeableness has positive relationship with social-centered perfectionism (P 0/05). The data in table 2 show that among personal traits, neuroticism is in positive relationship with academic procrastination and conscientiousness has negative relationship with academic procrastination (P 0/01). Also the findings illustrate that there is a meaningful negative relationship between self-efficacy and academic procrastination (P 0/01); between self-centered perfectionism and academic procrastination there is a negative relationship and social-centered perfectionism and academic procrastination are in positive relationship (P 0/05). The analysis of the relationship between personal traits and illustrated indicated that between extraversion, conscientiousness (P 0/01), openness and self-efficacy there is a positive meaningful relationship and there is a negative meaningful relationship between neuroticism and self-efficacy (P 0/01).

Table 3-Results of simultaneous regression to predict academic procrastination among students

variables	Indices Source of change	SS	DF	MS	F	P	R	R <sup>2</sup>
self-centered perfectionism	Regression	11136/43	1	11136/43	98/88	0/000	0/44	0/21
	Residual	24117/71	230	104/85				
	Total	35254/14	231					
conscientiousness	Regression	13189/21	2	6594/6	68/44	0/000	0/47	0/28
	Residual	22064/93	229	96/353				
	Total	35254/14	231					
self-efficacy	Regression	12765/54	3	4255/18	43/141	0/000	0/52	0/32
	Residual	22488/6	228	98/634				
	Total	35254/14	231					

The results of simultaneous regression (table3) are brought to answer to the first research question: Which one of the variables of self-efficacy, dimensions of perfectionism, and personal traits is able to predict the variance of academic procrastination of students? It shows that in the first stage self-centered perfectionism is entered into the equation and it predicts 21% of the variance in students' academic procrastination (P 0/01). In the second stage conscientiousness is entered into the equation and it raised the prediction of the variance in students' academic

procrastination to 32%. Also the changes of  $R^2$  indicate that conscientiousness and self-efficacy have 7 and 4 percent share in predicting students' academic procrastination ( $P < 0/01$ ).

Table 4-Results of simultaneous regression to predict self-centered perfectionism among students

variables	Indices of Source change	SS	DF	MS	F	P	R	$R^2$
neuroticism	Regression	1943/42	1	1943/42	15/72	0/000	0/31	0/13
	Residual	28423/61	230	123/58				
	Total	30367/03	231					
conscientiousness	Regression	2356/53	2	1178/265	9/71	0/000	0/37	0/17
	Residual	28010/50	229	121/31				
	Total	30367/03	231					

The results of simultaneous regression (table4) are brought to answer to the second research question: Which one of the variables of self-efficacy and personal traits is able to predict meaningful percentage of variance of self-oriented perfectionism among students? It shows that in the first stage neuroticism is entered into the equation and it predicts 13% of the variance in students' self-centered perfectionism ( $P < 0/01$ ). In the second stage conscientiousness is entered into the equation and it predicts 17% of the variance in students' self-centered perfectionism. Also the changes of  $R^2$  indicate that conscientiousness has a 4 percent share in predicting students' self-centered perfectionism ( $P < 0/01$ ).

Table 5-Results of simultaneous regression to predict social-centered perfectionism among students

variables	Indices of Source change	SS	DF	MS	F	P	R	$R^2$
agreeableness	Regression	794/62	1	794/62	11/33	0/000	0/33	0/11
	Residual	16121/12	230	70/09				
	Total	16915/74	231					

The results of simultaneous regression (table5) are brought to answer to the third research question: Which of the variables of self-efficacy and personal traits is able to predict meaningful percentage of variance of society-oriented perfectionism among students? It shows that agreeableness is entered into the equation and it predicts 11% of the variance in students' social-centered perfectionism ( $P < 0/01$ ).

Discussion and conclusion

This research is done to analyze the relationship between self-efficacy and dimensions of perfectionism and also between personal traits and academic procrastination of students. Findings of the analysis indicate that among students' self-efficacy and academic procrastination attribution there is a meaningful negative relationship. That is to say those, students with self-efficacy engage less in procrastination. This finding is in line with the research results carried out by Haycock, McCarthy, & Skay (1998), Tuckman & Sexton (1992) Madux (2002) Chu & Choi (2005) and Soe (2008).

As an explanation for this finding, it can be stated that self-efficacy is an intrinsic factor controlling the individual's actions (Nie, Lau, & Liao, 2011). On the other hand the findings of Lazarous and Folkman (1984) quoted in Nie, Lau, & Liao, 2011) indicate that the cognitive processes and individual's beliefs have an important role in considering a situation as being challenging or threatening. As a whole self-efficacy increases the students' experience of accessible skills and reduces their stress. So it can be concluded that the cognitive process and beliefs of people with high self-efficacy can result in considering the tasks as a challenge. But the cognitive process of people with low self-efficacy could cause them to consider the tasks as a threat which increases their anxiety and causes procrastination (Burke, 2000). In this regard Woul (2004) reported that if the students believe that they can learn if they try hard, they will try harder and insist against the obstacles. They also focus on the obstacle and feel more relaxed and prosperous and also enjoy better strategies.

Furthermore, based on the conducted studies, there is significant positive relationship between personal traits, neuroticism and academic procrastination and negative relationship between conscientiousness and academic procrastination. This finding is consistent with the research results carried out by Lee (1990) and Sokolowska (2009). In explaining these findings it can be expressed that anxiety as a feature of the neurotic people is an effective component which is often associated with fear of failure or conscientiousness aversion and results in procrastinated behavior (Solomon & Rothblum, 1984). Anxiety is not disruptive to study, specially when students procrastinate their tasks to get release of the negative anxieties related to studying with substituting other activities (Solomon et al, 1983; quoted by Sokolowska, 2009). Also regarding the study of Lui (1997) people who get better

results are keen in conscientiousness, accuracy and punctuality and there is a negative relationship with procrastination and this trait, because the conscientious people focus on their tasks and tend to organize their activities and this is in contrast with unhealthy behaviors.

Finally results of Pierson correlation between perfectionism and procrastination indicated that social-centered perfectionism is in positive relationship with academic procrastination and there is a negative relationship between self-centered perfectionism and academic procrastination. This finding is in line with the research results carried out by Hewitt & Flett (1991), Ferrari (1992), Woloshyn (2007) and Sokolowska (2009). In explanation of this finding it can be mentioned that social-centered perfectionism refers to unreal and exaggerated demands and expectations that others expect from the individual. Since these exaggerated standards are dictated to the individual and he has no control over them, usually cause fear of failure an anxiety finally resulting in procrastination (Holloway, 2009). These people are always worries about what others thinking about them and they defend themselves against failure by procrastination. However self-centered perfectionists really try to get their unrealistic purposes (Solomon & Rothblum, 1984) so they rarely happen to be procrastinate; they either bypass doing something or try really hard to accomplish it.

The results of regression analysis of table 3 predicting academic procrastination of students indicated that self-efficacy, self-centered perfectionism, and conscientiousness were entered into the regression equation. In explaining this finding it must be mentioned that self-centered perfectionists have some real expectations about their ability and performance and when they have freedom in their job accomplishment they try to perform the best way they could and choose the best goals in their studies because they only think to learn materials and do their best to become equipped with the best knowledge and the only thing that matter to them is to try to get their purposes and they accept personal and social barriers (Stober & Stoll, 2007). About the self-efficacy's ability to predict it can be said that when someone is interested to show his merit and competence to qualify for a task, he becomes interested in learning and increasing his abilities and believed that the effort is a way to improve abilities. And when someone has weak and low perceptions about his abilities and doesn't believe in his merits, he will always be anxious and struggling to refuse failure and run away from people's disapproval. Most probably people with low self-efficacy develop negative thinking (being suspicious about themselves or blaming the others) which causes their fear and avoidance of failure. Students that develop strong self-efficacy, have a better ability to manage their learning and stand up against the social barriers on their way to success. On the other hand students with low understanding of their self-efficacy struggle with problems like: academic procrastination and failure. Because of their lack resistance against social pressures, they are always worried about being compared with others, being incompetent from their point of view and their disapproval (Liem, Lau & Nie, 2008; Hanchon, 2010). About the conscientiousness' ability to predict it can be said that the conscientious individuals have great discipline and precision to do the tasks. They enjoy a developed conscience about ethical standards and adhere to the ethics and do their moral obligations (Casta & McCrae, 1992). Therefore these personal traits of the conscientious people along with their self-efficacy beliefs prevent them from procrastination.

The results of simultaneous regression in table 4 about to predict self-centered perfectionism among students indicated that neuroticism and conscientiousness entered to the equation. This finding is in line with Hill, McIntire, & Bacharach (1997) and Kouroshnia & Latifian (2011). In explaining these results it can be mentioned that people with high neuroticism are more prone to consider their mistakes as failures and believe that they loose their face after being failed. That is why they are really worries about their mistakes and generally care about other people's judgments. Their tendency to stress and depression along with focusing on weaknesses causes them to doubt that weather they have done their duty completely, or if there are some deficiencies (Harris, Pepper, & Maack, 2008). In explaining the prediction ability of conscientiousness it can be indicated that conscientious people are purposeful, hardworking, determined and after high performance. They focus on multiple purposes and do their best to satisfy them; they are efficient, disciplined and responsible. These personal traits of conscientiousness are in line with "Preferred order and organize training" and "high personal preferences" constituting forms of self-centered perfectionism (Stober, & Otto, 2006). Also the results of simultaneous regression in table 5- about predicting social-centered perfectionism among students showed that agreeableness entered into the regression equation. Agreeableness is an interpersonal structure including the processes of dependableness, honesty, altruism, compliance, modesty, and compromising the others. Along with this study Hill, McIntire, & Bacharach (1997) has shown that agreeableness is a predictor of social-centered perfectionism and as whole the processes of acceptance and modesty are good predictors because social-centered perfectionism is based on the belief that others imposing exaggerated unrealistic expectations on the individual and s/he has to get to these standards to get their approval. So naturally this personal trait increases the person's perfectionism in the social situation. Among the most important limitations of this research was to conducts it among female students. So care must be taken in generalizing the findings of this research to the non-student female and male society. Regarding that different factor play role on procrastination it is suggested that the future researches focus on the family situation, family function, level of

achievement motivation and the social class of the subjects in order to have a better judgment about the predictors of academic procrastination.

#### **REFERENCES**

- Chari M H DehghaniNasab Y 2007. Prediction of academic achievement based on the self-regulating strategies in learning. *Journal of Research in the Educational systems*. 2(4): 63-73.
- Kouroshnia, M., &Latifian, M. (2011)Relationship between the five-factor model of personality and perfectionism. *Psychology Studies*, 7(4): 27-54.
- Kiamehr, J. (2002). Standardization of the Abbriedged Form of NEO.FFI and Validation of the Factor Structure of the Five Factor Inventory (Confirmatory Analysis) among Students of Faculty of Humanities, Tehran University. (Unpublished MA thesis). Allameh Tabatabai University, Faculty of Psychology and Educational Sciences. Tehran, Iran.