



Role of personality characteristics and family of origin in anticipation of forgiveness

Ghader Naiemi¹, Farshad Mohsenzadeh¹, Fahimeh Pirsaghi¹, Tayebeh Maleki²

Journal of Research & Health
Social Development & Health Promotion
Research Center
Vol. 6, No. 1, Mar & Apr 2016
Pages: 145-152
Original Article

1. Department of Counseling, Faculty of Psychology and Educational Science, University of Kharazmi, Tehran, Iran

2. Department of Educational Management, Faculty of Psychology and Educational Science, University of Islamic Azad, Alborz, Iran

Correspondence to: Ghader Naiemi, Department of Counseling, Faculty of Psychology and Educational Science, University of Kharazmi, Tehran, Iran
Email: Ghader.naiemi64@gmail.com

Received: 2 Des 2014

Accepted: 7 Jul 2015

How to cite this article: Naiemi Gh, Mohsenzadeh F, Pirsaghi F, Maleki T. Role of personality characteristics and family of origin in anticipation of forgiveness. *J Research & Health* 2016; 6(1): 145-152.

Abstract

Forgiveness is one of the newest issues in the realm of positive psychology and family studies that has come into the limelight of counselors and psychologists due to its effect on the well-being and mental health of individuals. The purpose of this study was to investigate the relationship between forgiveness, personality characteristics, and family of origin features. The present study was a descriptive correlational research. 124 Iranian university students (56 males and 68 females) were selected using single-stage random cluster sampling method. They were asked to complete the research tools. To collect data, three questionnaires were employed, including Forgiveness scale, the Big Five Inventory (BFI) of personality, and Family of Origin Scale (FOS). The obtained data were analyzed using Pearson's correlation coefficient and stepwise multiple regression. The obtained results suggested that the factors including extroversion, openness, agreeableness, conscientiousness, and the family of origin have significant positive relationships with forgiveness. Neuroticism also showed a negative relationship with forgiveness. Neuroticism and extroversion could explain 20% of the variance of forgiveness in two steps. In conclusion, personality characteristics and family of origin can explain variances of forgiveness; hence, the obtained results are deserved to be considered in the implementation of preventive and therapeutic programs.

Keywords: Family, Forgiveness, Personality Characteristics

Introduction

Forgiveness is one the newest issues in realm of positive psychology and family studies that has been lionized by consultants and psychologists progressively because of its effect on individuals' well-being and mental health, [1]. The theoretical concept of forgiveness and its direct measurement tool were first introduced by Mc Cullough et al [2]. Forgiveness is a characteristic which causes a person troubled or injured in his/her interrelations, decides to

forgive the trespasser and gives the opportunity to compensate and rebuild the interpersonal trust [3]. The forgiveness concept is defined as renunciation of anger and resentment against an offensive action in which, the healthy person manners warmly and friendly with wrongdoers. The occurrence of forgiveness includes four steps: taking offence, being hated, reconciled to the event, and finally, reconciliation with perpetrator [4].

The offered definitions about forgiveness typically include three common components: 1) achieving the balance in attitude to the offender and the occurred event; 2) reducing the negative emotions against the offender in parallel with cultivating the compassion and sympathy; 3) renouncing the right of punishing the offender [5]. The thing that underlines the forgiveness concept is its healer nature. Forgiveness is a feature that provides the possibility of a relation to be continued notwithstanding the mistakes, betrayals, or failures in meeting the expectations. Forgiveness does not allow the negative, inhibitor affections to rule the person; but offers the possibility of continuous and intimate relationships despite available threats. Thus, forgiveness is an important factor in retaining and continuing the serious and long-time relations [6]. On the other hand, forgiveness due to its negative relation to anger, cud, avenging, and high levels of blood pressure and its positive relation to sympathy and agreement, has positive effects on individuals' well-being and mental health [7]. Many studies have confirmed the positive consequences of forgiveness; for example, Friesen & Fletcher found out that forgiveness has a direct relation to improving mental health and social behaviors [8]. Yip and Tse in their study showed that forgiveness has a significant relation to interpersonal consistency, health, and lack of depression [9]. Row et al found a significant relation between mental health and forgiveness tendency, too [10]. There is a set of factors making it difficult or easy to forgive the trespasser after his/her treason or interpersonal hurt [11]. One of them is the personality characteristics. The personality of anybody is a set of behaviors that makes his/her individuality and differentiate him/her from other people [12]. Thus, individuals' personality characteristics can offer some patterns for predicting their behaviors and mental states. The individual differences between people are important factors that rationalize why some persons are better than the others in adaptation to conditions and environmental variables. The personality characteristics affect the shaping of person's behavior through influencing the

individual's interpretation about environmental events[13].

Although, the personality characteristics are too varied, among the most important and effective models employed during last decades for investigating the personality characteristics is the big five-factor model [14]. Costa and Mc Crae by using the factor analysis method concluded that five main dimensions are distinguishable in personality characteristics, which are neuroticism, extroversion, openness, agreeableness, and conscientiousness. The neuroticism refers to person's tendency to experience the anxiety, stress, self-pity, enmity, depression, and low self-esteem. The extroversion refers to person's tendency to be positive, courage, high energy, and sincere. The openness refers to person's tendency to be curious, art lover, artist, flexible, and wise. The agreeableness refers to person's tendency to munificence, kindness, generosity, sympathy, humanism, and truth. Finally, the conscientiousness refers to person's tendency to be ordered, efficient, trusty and reliable, self-regulating, progress oriented, logical, and relax [14].

Mullet et al investigated the correlation between personality characteristics and forgiveness [15]. They found that there is a positive, significant relation between agreeableness, extroversion, and positive self-awareness with forgiveness. Also they showed that the relation between forgiveness and openness is weak and with neuroticism is negative. In addition, the findings of Brose et al [16], McCullough et al [17], Neto [18], Maltby et al [7], Allemande, Christen and Keller [19], Row et al [10], Ehteshamzadeh and tabibi [6], Zandi Pour et al [20] showed that the five personality factors have a significant role in predicting forgiveness, as the relation between forgiveness and neuroticism is negative. Moreover, having the negative feels such as fear, sorrow, impulse, anger, guilty, and hank feel is the characteristic of neurotic people. Particularly, the aggressive enmity, which is an important aspect of neuroticism, was introduced as an inhibitor factor of forgiveness [16].

Family is one of the effective factors in shaping the personality characteristics. Person internalizes the values and characteristics of the family and based on it, shapes his/her personality and behavioral patterns in making relation with other people [21]. The health of family of origin environment and primary learning contents has a significant role in forming the identity and personality of persons. The individuals' experience in "family of origin" forms the interpersonal relations and behaviors [21]. The studies of Hoseinian and Yazdi [22], Farahbakhsh [23], Wallerstein and Blakeslee [24], Barber and Buehler [25], Conger, Cui, Bryant and Elder [26], Lynam and Miller [27], Muraru and Turliuc [28] imply that "family of origin" variable can predict the characteristics such as independence, sincerity, agreement, satisfaction, and type of individuals' relations.

Forgiveness in family context as a characteristic influenced by family of origin, is introduced when a member of family make a trouble for other members by his/her speech or action [28]. It is not possible for family members to live together without irritating each other sometimes or perhaps often. This means that in family relations, presence of confliction or irritation is unavoidable and the thing that differentiates the problematic or difficult family relations from non problematic ones is not the presence or absence of damages, but it is confessing the fact of irritating the glum person and forgiving the offender in a reciprocal relation [29].

Family as a social and affective unit can be a place for growth, healing, transformation, and evolution of family members and a bed for efflorescence the members. Conversely, it can be an origin for damages and a cause of collapsing the relations of family members [30]. Family gives to anybody a mere and special identity. Each member internalizes all values and features of family in him/her and forms his/her personality and behavioral patterns in relation to others based on these features and values [21].

Based on the abovementioned materials, it seems that shortcoming in forgiveness results in the increased mental hurts and makes difficulties in maintaining or improving the individuals'

mental health in next periods of life. Due to the absence of studies on the role of family of origin and personality characteristics in forgiveness, the aim of the present study is to investigate and compare the relation rate and direction between personality characteristics and family of origin with forgiveness and to determine their contribution in predicting the forgiveness.

Method

This study is a correlational research. The statistical population comprised all the students of Ardabil university of medical sciences, Iran, (N=2500) in 2014-2015. The survey research sample composed of 124 participants, selected by a single-stage random cluster sampling method. Accordingly, one class room from each faculty was randomly selected. The students were asked to respond to the research tools.

Big Five Inventory (BFI): This questionnaire measures the features of five main factors through short statements. The five-factor questionnaire consisted of 44 short questions with a five-degree scale (1=strongly disagree, 5=strongly agree). The study of Gravand, Shokravi, Afzali and Toolabi [31] showed that BFI structure has an acceptable correlation with data. The cronbach's alpha coefficient for conscientiousness, neuroticism, openness, extroversion, and agreeableness has been reported as 0.85, 0.84, 0.76, 0.72, 0.60, respectively [31].

Forgiveness scale: This scale comprises 15 questions with 5 options in Likert scale (strongly agree to strongly disagree). It has been designed to measure a person's tendency to be forgiving. This scale was developed by Ray to measure the women responses to disservices observed in their lovely relation. Later, its questions were modified so that can cover all people and any kind of disservices. In Rye et al study on 328 boy and girl students with mean age of 19 years old, the alpha coefficient was 0.87. In the study of Yadegari on 230 nurses the alpha coefficient was obtained as 0.90. In a study by Maltby on 151 men and 153 women with mean age of 33 years, the

Cronbach's alpha coefficient was 0.86 and retest reliability was obtained as 0.76 [6]. In Hamidi Pour's research, the cronbach's alph coefficient was reported as 0.83. In Rye and Enright's study on 328 boy and girl students with mean age of 19 years, a positive correlation was obtained between this scale and Enright forgiveness scale ($r=0.75$); they obtained a positive, significant correlation between this scale and scales of piety, spiritual health, hope and social appetite, but they found a negative correlation between scales of Anger as a Train and State ($p<0.001$) [32].

Family of origin scale (FOS): This scale was developed by Hawistidate et al for measuring family health. The main test includes 40 items and 10 subscales that totally composed of two primary dimensions of Autonomy and Intimacy. The total score is obtained by summing the scores of these 40 items. In the present study, a summary of the scale with 15 clauses was used. Rion et al derived two parallel versions with 15 clauses from the main test. By factorial analysis, 10 clauses were removed from 40 ones. These authors obtained the Cronbach's alpha coefficient for form 1 and 2 as 0.95 and

0.94, respectively. Both versions have a high level of internal consistency. The correlation between forms 1 and 2 is very high and significant ($p<0.100$, $r=0.94$) and meanwhile have a significant correlation with main scale of test ($p<0.001$, $r=0.98$) [33]. In Iran, Jasbi obtained the alpha coefficient as 0.94 for the total scale, 0.90 for Autonomy concept, and 0.89 for Intimacy concept [33]. In the study of Arefi the internal consistency was proven by calculating Cronbach's alpha as 0.89 [33].

Results

The gathered data were analyzed by SPSS-20. According to the level of variable measurement, the descriptive statistics (mean and standard deviation) and inferential statistics (correlation matrix and stepwise regression analysis) were employed.

The demographic information and descriptive findings about the students participating in the present study are summarized in Table 1. Among 124 participating students were 56 boy students with mean age of 21.23 and SD of 1.97, and 68 girl students with mean age of 20.92 and SD of 1.79.

Table 1 Demographic information, mean and standard deviation of age of the students as a function of gender

	Gender	N	Min	Max	Mean	± SD
Students	Female	56	19	29	21.23	1.97
	Male	68	18	27	20.92	1.79

Table 2 shows the descriptive findings on the research variables as mean and standard deviation. As can be seen, the highest mean belongs to the

family of origin variable; the highest SD and the lowest mean belong to neuroticism and the lowest SD belongs to agreeableness.

Table 2 Mean and standard deviation (SD) of forgiveness, family of origin, and big five inventory (BFI) of personality variables

	N	Mean	± SD
Forgiveness	124	46.30	6.77
Family of origin	124	47.20	4.76
Extroversion	124	24.91	4.81
Agreeableness	124	32.88	4.43
Conscientiousness	124	32.00	4.71
Neuroticism	124	24.28	7.66
Openness	124	36.80	6.15

The results presented in Table 3 imply that forgiveness has a positive, significant relation with "family of origin" and personality

characteristics, except for neuroticism,. There is a direct, significant relation between openness and "family of origin". Of course, the variable

Table 3 Correlation matrix of research variables: personality characteristics dimensions, family of origin, and forgiveness

	(FO)	(F)	(E)	(A)	(C)	(N)	(O)
Family of Origin (FO)	1						
Forgiveness (F)	0.252*	1					
Extroversion (E)	0.336**	0.325**	1				
Agreeableness (A)	0.177	0.203*	0.079	1			
Conscientiousness (C)	0.203*	0.272**	0.283**	0.285**	1		
Neuroticism (N)	-0.395**	-0.401**	-0.285**	-0.311**	-0.363**	1	
Openness (O)	0.394**	0.191*	0.342**	0.239**	0.250**	-0.206*	1

* Significance level of 0.05

** Significance level of 0.01

of “family of origin” has a direct relation with extroversion and has an inverse, significant relation with neuroticism. The highest relation is between forgiveness and neuroticism that is a negative, significant relation. In addition, extroversion has the highest positive, significant relation with forgiveness, so that increased extroversion is accompanied by

forgiveness increment. Among the personality characteristics, openness had the poorest positive relation with forgiveness.

Based on the results presented in Table 4, at the first step of stepwise regression analysis, the neuroticism and at the second step, both extroversion and neuroticism have a significant ability to predict forgiveness.

Table 4 Results of stepwise regression analysis to predict forgiveness based on family of origin and five personality factors

Predictive variables	Model	R	R ²	F	R ² Adjusted	ΔR ²	β	Estimated standard error
Neuroticism	1	0.396	0.157	22.347	0.150		-0.396	0.107
Neuroticism	2	0.453	0.206	15.393	0.192	0.042	-0.332	0.109
Extroversion							0.229	0.172

Neuroticism predicts 15.7% of forgiveness variances. This value reaches 20.6% by including extroversion. When the extroversion factor is included, 4% increment is appeared to the value of predicted variance. As can be seen in Table 4, by changing one unit in neuroticism, forgiveness reduces as 0.332 units, and by adding extroversion, the forgiveness increases by 0.229 units.

Discussion

The results of the present study showed that there is a significant relation between personality characteristics and forgiveness. Based on the obtained results, the neuroticism has a negative, significant relation with forgiveness. At the first step of regression, neuroticism predicted 39% of variances related to forgiveness as an inverse relationship. In other words, as neuroticism increases, t

person's dispositional forgiveness decreases. These results are consistent with the findings of Asthon et al [34], Walker & Gorsuch [35], Brose et al [16], Neto [18], Allemande, Christen and Keller [19], and Zandipour et al [20]. All of these researchers concluded in their studies that neuroticism has a negative correlation with forgiveness.

Neuroticism is inhibitor of forgiveness; because the neurotic individuals have not affective stability. In addition, these persons exhibit some important features of neuroticism including anxiety, aggression, irritability, cyclothymia, extra sensitivity, fear, sorrow, impulse, guilt feel, hank, anger particularly the aggressive enmity, which all are inhibitors of forgiveness [16]. Forgiveness occurs when one can control his/her negative emotions, showing more emotional stability as a result; therefore as a person is more neurotic, he/she shows less tendency to be forgiving because of high levels of enmity and nemesis.

Findings of this study show that there is a positive, significant relation between extroversion and forgiveness. Extroversion can predict 20% of variances related to forgiveness. Accordingly, the extroversion individuals have more forgiveness. These findings are consistent with the obtained results by Ashton et al [34], McCullough et al [3], Brose et al [16], Ghobari Bonab, Keyvanzadeh and Vahdat Torbati [36], Zandipour, Azadi, and Nahidpoor [20]. These researchers concluded that by more extroversion, the forgiveness tendency would be more intense. Worthington et al [37] in their study introduced openness to experience as a key feature of forgiveness. Openness is an important communicative skill that those who having it, will have a better understanding about differences in thoughts and behaviors of other people; they can accept and respect the differences. Therefore, they will act more flexible. These individuals can overcome their negative emotions and irritations. In the abovementioned studies, no relation was distinguished between forgiveness and openness, while in the present study we found a significant statistical relation between these variables that is in agreement with the findings of Ehteshamzadeh and Tabibi [6]. To justify the

latter finding, it can be said that extroverts has an outward orientation and more tendency to social and stimulant activities and they are active and courageous people [20]. Forgiveness gives them the possibility of better adaptation via confronting the negative emotions.

On the other hand, the present study showed a positive, significant relation between forgiveness and "family of origin". The positive, significant relation also was observed between forgiveness and personality characteristics of extroversion and openness. The neuroticism feature had a negative, significant relation with "family of origin" variable. These findings are in agreement with studies of Hoseinian et al [22], Conger et al [26], Miller [27], which all imply that "family of origin" can predict the main personality characteristics. To justify this finding, it can be said that family is the first and the most important entity in forming the human personality. Role and influence of "family of origin", environment, and civility on individual's personality, performance, flexibility. and adaptation with improper conditions are undeniable. Home is the first place in course of social life of an individual. It should be governed in a manner that makes the relaxation and balances between family members. Existence of a warm, cultivating, and lively environment in the family is a reliable base for the family members that guarantee the mental and spiritual health of members [38]. In fact, what that occur inside the family and its performance can be a key factor in making flexibility and reducing the dangers related to improper and horrible events [28].

In family relations, existence of confliction or irritation is inevitable and the thing that differentiates the problematic or difficult family relations from non problematic ones is not the presence or absence of damages, but it is confessing the fact of irritating the glum person and forgiving the offender in a reciprocal relation [29]. Since family gives to anybody a mere and special identity and individual internalizes all values and features of family in him/her and forms his/

her personality and behavioral patterns in relation to others based on these features and values [21], it can be said that person heirs the forgiveness characteristic from the family. Influence of “family of origin” in appearing different characteristics in people has been shown in many studies.

Conclusion

Based on study findings it can be said that “family of origin” and personality characteristics have an important role in the prediction of forgiveness tendency. Particularly, neuroticism and extroversion are strong predictors in this context. Thus, it is suggested that “family of origin” and personality characteristics such as extroversion and neuroticism be taken into account in healing interventions related to forgiveness. One of the limitations of the present study was that the study was conducted only on the students, so care should be taken upon generalizing the results to other age groups and public society.

Acknowledgements

The authors acknowledge all students of Ardabil University of Medical Sciences for participation in this study.

Contribution

Study design: FM

Data collection and analysis: GhN, FP, TM

Manuscript preparation: FP, GhN

Conflict of Interest

"The authors declare that they have no competing interests."

References

- 1- Isazadegan A. Psychology of forgiveness and its position in Sajadieh Sahifeh prayers. *Knowledge Magazine*2013; 21(174): 28-13.
- 2- Mc Cullough ME, Worthington EL JR, Rachal KC. Interpersonal forgiving in close relationships. *J Pers Soc Psychol*1997; 73(2): 321-36.
- 3- Mc Cullough ME, Root LM, Cohen AD. Writing about the benefits of an interpersonal transgression facilitates forgiveness. *J Consult Clin Psychol*2006; 74(5): 887-97.
- 4- Joshua NH, Everett LW, Shawn OU, et al. Does forgiveness require interpersonal interactions? Individual differences in conceptualization of forgiveness. *Perso Indivi Differ*2012; 53(5): 687-92.

- 5- Asgari P, Roshani Kh. Validation of forgiveness scale and a survey on the relationship of forgiveness and students' mental health. *Intl J Phys Beh Res*2013; 2(2): 109-15.
- 6- Ehteshamzadeh P, Tabibi Z. The relationship between personality traits and attachment styles with forgiveness in Iran's Ahvaz National oil company employees. *New Findings in Psychology Psychology*2011; 6(18): 87-102.
- 7- Maltby J, Wood AM, Day L, Kon TWH, Colley A, Linley LA. Personality predictors of levels of forgiveness two and a half years after the transgression. *J Res Pers*2008; 42(4): 1088-94.
- 8- Friesen MD, Fletcher GJO. Exploring the lay representation of forgiveness: convergent and discriminant validity. *Personal Relationships*2007; 14(2): 209-23.
- 9- Yip TH, Tse WS. Relationship among dispositional forgiveness of others, interpersonal adjustment and psychological well-being. *Pers Individ Dif*2009; 46(3): 365-8.
- 10- Lawler Row KA, Karremans JC, Scott C, Edlis Matityahou M, Edwards L. Forgiveness, physiological reactivity and health: The role of anger. *Int J Psychophysiol*2008; 68(1): 51-8.
- 11- Lawler KA, Younger JW, Piferi RL, Jobe RL, Edmondson KA, Jones WH. The Unique effects of forgiveness on health: an exploration of pathways. *J Behav Med*2005; 28(2): 157-67.
- 12- Mehdi Zarei A. The relationship between attachment styles, personality characteristics and value systems with general health of students, Master's thesis: Islamic Azad University, Ahvaz Branch 2008; pp: 53-7.
- 13- Hargrave DT. Families and forgiveness: a theoretical and therapeutic framework. *The Family Journal*1994; 2(4): 339- 48.
- 14- Costa PT, Mc Crae RR. Normal personality assessment in clinical practice: the NEO personality inventory. *Psychological Assessment*1992; 4(1): 5-13.
- 15- Mullet E, Neto F, Rivière S. Personality and its effects on resentment, revenge, forgiveness, and self-forgiveness. In: Worthington EL, eds. *Handbook of forgiveness*. New York: Routledge; 2005. pp: 159-81.
- 16- Brose LA, Rye MS, Zois CL, Ross SR. Forgiveness and Personality traits. *Pers Individ Dif*2005; 39(1): 35-46.
- 17- Mc Cullough ME, Bellah CG, Kilpatrick SD, Johnson LJ. Vengefulness: relationships with forgiveness, rumination, well-being, and the big five. *Pers Soc Psychol Bull*2001; 27(5): 601-10.
- 18- Neto F. Forgiveness, personality and gratitude. *Pers Individ Dif*2007; 43(8): 2313-23.
- 19- Allemande M, Job V, Christen S, Keller M. Forgiveness and action orientation. *Pers Individ Dif*2008; 45(8): 762-66.
- 20- Zandi Pour T, Azadi Sh, Nahid Pour F. Study the relationship between personality characteristics, forgiveness and mental health in couples referring

- to Health Centers of Gachsaran. *Journal of Women Sociology*2012; 2(2): 1-18.
- 21- Sanaii B. Role of family of origin in children marriage. *Journal of Counseling Research*2000; 1(2): 21-46.
- 22- Hoseinian S, Yazdi SM, Jasbi M. The relationship between the health level of family of origin and marital satisfaction in female teachers of education system, Karaj city. *Journal of Educational and Psychological Research*2007; 3(7): 63-76.
- 23- Farahbakhsh K. The correlation between perceived characteristics of family of origin and current family and their relationship with marital conflict. *Journal of Counseling and Psychotherapy culture*2012; 2(6): 35-60.
- 24- Wallerstein J, Blakeslee S. Second chance men, women and children after divorce. New York: Tichnor & Fields; 1989.
- 25- Barber BK, Buehler C. Family Cohesion and Enmeshment: different constructs, different Effects. *Journal of Marriage and Family*1996; 58(5): 433-41.
- 26- Conger RD, Cui M, Bryant CM, Elder GH JR. Competence in early adult romantic relationships: A developmental perspective on family influences. *J Pers Soc Psychol*2000; 79(2): 224-37.
- 27- Lynam DR, Miller JD. Psychopathy from a basic trait perspective: the utility of a five-factor model approach. *Journal of Personality*2014; 81(2): 168-78.
- 28- Dinero RE, Conger RD, Shaver PR, Widaman KF, Larsen Rife D. Influence of family of origin and adult romantic partners on romantic attachment security. *J Fam Psychol*2008; 22(4): 622-32.
- 29- Worthington ELJ, Van Oyen Witvliet C, Lerner AJ, Scherer M. Forgiveness in health research and medical practice. *Explore (NY)*2005; 1(3): 169-76.
- 30- Goldenberg I, Goldenberg H. Family therapy: an overview. Translate by Hosseinshahi Baravati H, Naghshbandi S, Arjmand E. Tehran: Ravan Publication; 2009.
- 31- Geravand F, Shokri O, Afzali MH, Toulabi S, Fouladvand K. List of Big Five personality. Factor structure, reliability and validity. *Journal of Contemporary Psychology*2007; 3(3): 25-48.
- 32- Hamid Pour R. Effectiveness of forgiveness-based group counseling on marital satisfaction. Unpublished Ph.D [dissertation]: Tarbiat Moallem University of Tehran 2011; pp: 69-73.
- 33- Arefi M. The evaluation of marital stisfaction model. Unpublished Ph.D [dissertation]: Islamic Azad University: Science and Research Branch, Tehran 2012; pp: 88-94.
- 34- Ashton MC, Paunonen SV, Helmes E, Jackson DN. Kin altruism, reciprocal altruism, and the big five prsonality factors. *Evol Hum Behav* 1998; 19(4): 243-55.
- 35- Walker DF, Gorsuch RL. Forgiveness within the big five personality model. *Pers Individ Dif*2002; 32(7): 1127-37.
- 36- Ghobari Bonab B, Keyvanzadeh M, Vahdat Torbati Sh. The relationship between forgiveness and mental health of medical students. *Hozhe and Daneshghah Magazine*2009; 2: 57-70.
- 37- Worthington EL JRL, Van Oyen Witvliet C, Lerner AJ, Scherer M. Forgiveness in health research and medical practice. *Explore (NY)*2005; 1(3): 169-76.
- 38- Fattahizadeh A. Comparing the quality of life and family performance in happy and unhappy staff of Shazand Refinery. Unpublished M.A. [dissertation]: Islamic Azad University of Arak 2010; pp: 65-67.