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Prediction of famaily performance of married MS patients based on psychological indexes and mediated by moral foundations and spiritual experience

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Abstract

Objective: The purpose of this study is to create a conceptual empirical model and develop a causal model that is able to explain overall performance of MS patients' families and provide a scientific and empirical basis to Iranian culture to identify the psychological indexes of hardiness, hope, and resiliency, as well as the mediator role of moral foundations and spiritual experiences involved in family overall performances among patients' spouses.

Method: For this purpose, using non-random sampling method, 220 subjects were selected out of all patients with MS and their spouses in two cities of Tehran and Karaj in 2014-2015. They completed the questionnaires of Family Assessment Device, Hardiness Scale (Kobasa, 1990), Connor-Davidson Resilience Scale, Snyder Hope Scale, Daily Spiritual Experiences Scale, and Moral Foundations Questionnaire (Hythe & Graham, 2007) personally and non-personally. In order to analyze the data, common methods of descriptive statistics, structural equations, path analysis, and multiple regression were used and the data were analyzed using the software packages of SPSS and LISREL.

Results: The results showed that hope was determined as the variable that predicts family overall performance with a good effect coefficient.

Conclusion: The important finding about the model was that the path from the mediator variable of spiritual experiences towards family overall performance was not direct, that is spiritual experience was effective on moral foundations and moral foundations in turn was the most effective path to family overall performance.

Keywords: psychological indexes, family performance, MS patients' spouse, spiritual, moral

Introduction

Family, as one of the important components of society and the smallest social unit, where an individual gains their first life experiences, has always been considered crucial by experts and researchers of human sciences, especially psychologists, consultants, and sociologists (Goodarzi et al., 1387). It can be said that family performance plays an important role in the normal and abnormal growth of individuals (Golchin et al., 2001).

One of the family's duties is to act in emergencies. The region of duty is defined as facing crises that may occur during a disease, accident, loss of income, changing jobs and so on (Haghshenas, 2008).

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Pazili et al. (2004) showed that care of people about MS leads to a reduction of life satisfaction and life quality of caregivers in comparison with public population. In addition, the amount of depression in caregivers is linked with physical and mental states of their patients (Hurst, 2005).

In the three dimensional approach of biological, psychological and social anglesthe following methods can be used to deal with the important dimensions to enhance and maintain their life quality and performance in each of these dimensions (their extension will later make six dimensions of biological, psychological, social, cultural, spiritual and moral in order to investigate efficient families with respect to the fact that a chronic and progressive patients have shadowed their lives). In fact, in order to develop thePredictive model with the exploratory method, one of the variables of various dimensions should be addressed, which here are at least the three dimensions of psychological, spiritual, and moral.

We intend to address at least four features in the psychological dimension. Variables to be studied in the psychological dimension are hardiness, resilience, and hope.

Hardiness is a concept that originates from philosophy and was developed by Suzan Kobasa (1979). It is an attitude consisting of three sub-components of commitment, control, and challenging which helps the successful resolution of anxiety by changing critical conditions to a progressive experience (Ghorbanali, 2010).

Researchers, such as Voget et al. and Lambert, showed that people with high hardiness do not get sick in stressful conditions. Hard people are deeply involved with life activities and dominate life complexities. They believe that their life is targeted, are not passive spectators, and take responsibility to give meaning to their life.

Edwards Bergman's studies (2008) showed that hardiness, while creating resistance against stress and suitable coping strategies, increase hope among people. The issue indicates more compatibility of hopeful people with stress and their ability to adjust stressful events. Some studies have investigated the relationship between variables of hardiness, life satisfaction, and hope with academic performance (Bidokhti & Erfani, 2001).

Resiliency, as one of the components of positive psychology, plays a role in mental health and has been defined as the talent to remain healthy while confronting negative events and flexible confrontation with life challenges.

According to Connor, adjusting and compromising factors such as stress, depression, and resiliency guarantee peoples' well being. Studies show that resilient people who do not have self-breaking behaviors are emotionally calm and have the ability to cope with terrible conditions (Maddah Karani, 1392). A study addressing the effect of teaching resiliency on MS patients' psychological well-being showed that teaching resiliency has been meaningfully effective on MS patients' psychological well-being in the areas such as autonomy, self-acceptance, objective and orientation, environmental mastery, personal growth, and positive relation with others (Shirin, 2012).

Finally, the important variable of psychology area which is very important for the continuation and solidarity of married life is hope. Stuttland (1969) defines hope as a kind of imagination of probability of achieving a goal, which is more than zero. Nunn (1969) presumes the hope as a general tendency to build the future and a positive response to the perceived future (Snyder & Etal, 1994).

Adults and children can hopefully create more methods for reaching their goals. Some researchers believe that the concept of hope is a kind of concept that is related to adaptability, faith, and capability that can be regarded as an effective response to stressful factors by making current situation tolerable. Hope strengthens the physiological and psychological functions and lack of it leads to

premature failure of an individual's performance (Brairwaite, 2004).

In addition to the very important and sensitive dimension discussed earlier, the of spirituality in confronts the difficulties of life is cultural foundations the majority of which is spirituality linked to an eternal source that, should not be ignored. One of the probabilistic components affecting psychological well-being is religion/spirituality (Maddah Karani, 2012). Many researchers, such as Denise, Walt, Mcewen, Wong, and Yang showed that when confronting with damage, people with spiritual tendencies respond better to its internal situation, manage the pressure producer better, and have better health conditions. In addition, spiritual tendencies and being religious result in the enhancement of psychological well-being and mental health (Hales & Fracis, 1999).

In the end, morality is regarded as one of the most important human dimensions and the foundations related to it as the capability to use world ethic principles regularly in a person's goals and dealings. From perception point of view, judging good and bad deeds originates from world principles and passes from all cultural barriers. One of the important codes of ethics of all cultures is to diagnose responsibility and being able to face and sympathize with others. A majority of religions in the world have also considered common values such as commitment, responsibility, respect, and dignity of other human beings (Rafati, 71).

In the study of Sadeghi and Samani (2011), it was specified that there is a positive and meaningful relationship between the quality of marital and sexual relations, on the one hand, and ethical considerations and life satisfaction of couples on the other hand. The considerable finding of the study of Johnson et al. indicates that ethical commitment results in the stability and sustainability of couples' marital relations (Asghari, & Ghasemi Joobneh, 2012).

Family is the first barrier and the strongest mainstay for the welfare of its members. When a member becomes ill, it is likely that all family members are sick. The people involved may not be able to participate in activities that they previously enjoyed for a long time and the dynamic and mobility of family is often changed (Sadat et al., 2006).

Family and especially spouses have been introduced as the best source to take care of patients with MS. If caregivers have sufficient support and facilities, they can gladly support the patient with MS materially and spiritually. However, the duty becomes unbearable in real situations. The burden of balancing jobs, economic issues, care for children and increasing jobs at home on the caregivers will have consequences such as family isolation, despair of social support, disruption of family relationships and inadequate care of patients, and finally abandoning patients (Millbury, 2013; chang, 2010; utne, 2013).

In spite of prevalence of MS patients and the potential pressure on their caregivers, so far the issue has not been of interest to researchers in Iran and no documentary and official facts and figures are available in this regard. Considering the author's experience in facing with problems of caregivers of patients with MS, the importance of the issue and lack of domestic studies on this subject, the researcher aimed to take a step towards this important issue. Development oh fii h a predictive model for family performance and involving patients' families is one of the researcher's suggestions. In this way, it may be possible to reach a comprehensive local model with cultural and spiritual factors for all chronic diseases that necessarily need the care of all family members and more importantly their spouse.

In the end, we need to answer the question of whether it is possible to explain the relationship between psychological indexes (hardiness, resiliency, and hope) and the spouse's family performance of patients with MS considering the mediator role of moral foundations and spiritual experiences.

Method

The present study has been carried out based on a correlation oriented causal model to determine possible causal relationships between variables based on structural equations modeling.

Based on the above theoretical and empirical foundations, a model has been developed in this study to explain the family performance for the spouses of patients with MS to not only develop a suitable model but also perform necessary adjustments on the obtained findings and theoretical texts and foundations to achieve the fittest explanatory model for the family performance of these patients. The most general form of the model is shown in figure 1.

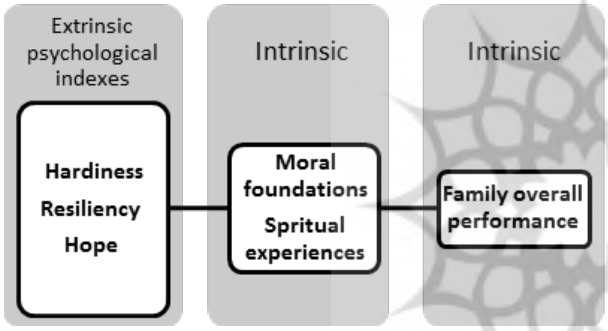

Figure 1. The conceptual model of explaining family overall performance

As it is seen in figure 1, in the above model, psychological indexes (hardiness, resiliency, and hope) are assumed as independent or extrinsic variables which affect family overall performance as dependent variable (intrinsic) via two variables of moral foundations and spiritual experiences as mediator variables (intrinsic).

Statistical population and sample group

The target population of the study includes patients with MS and their spouses in the two cities of Tehran and Karaj. Based on the study plan and non-random sampling method, the study sample group was selected in three steps as follows.

At first, in order to reach the target group, MS Research Center of Iran, MS Society of Tehran, MS Society of Karaj, and support community for MS patients were selected as the main clusters for determination of the sample group. The population volume was investigated in these centers and was estimated above 6500 people. In the next step, in order to popularize the sample group more, the data of the private office of Dr. Mohammad Ali Sahraeian were also entered into the statistical population.

- In the third step, in order to select the final group, 300 of patients' spouses who had the entry criteria and volunteered to participate in the study beforehand were selected based on non-random sampling. Because of the group special condition with the possibility of not returning questionnaires packages, the sample volume was selected more than needed. The sample volume was determined for causal plans and 1 to 20 formula modeling (Clain, 1998; Bentler, 1990). In other words, at least 20 subjects were considered for each variable entering the model. Since the number of variables of the study was six for the most general model, the sample volume of 200 people would be suitable to implement and fit the model. The sample group was selected based on the following inclusion criteria: 1) Diagnosis of a neurology expert doctor to be sure a person has MS, 2) Being married, 3) Lack of psychiatric and psychological interventions in the past year for the patient and their spouse.

Ethical Considerations

- He is patient with complete satisfaction.
- Patient information will be kept strictly confidential.
- The Other ethical cases will be considered based on Helsinki statement.

The Family Assessment Device

Family assessment device is a sixty-item questionnaire which has been developed based on Mac master model of family function by Epstein,

Table 1. demographic characteristics of the sample group in the second step

Variable	n	%	variable	n	%
Gender			sister and brother		
Man	134	60.9	none	1	0.5
Woman	36	16.4	1	69	31.5
no response	50	22.7	2	47	21.4
employment status			3	16	7.3
Employee	60	86	4	4	1.8
self employed	66	13	no response	83	62.3
unemployed	21	0.6	disease type		
retired	13	0.4	relapse/remission	12	5.5
no response	60		relapse/progressive	8	3.6
academic degree			primary progressive	8	3.6
school education	19	8.7	secondary progressive	6	2.7
Diploma	76	33.4	no response	188	84.4
Undergraduate	40	18.2			
Graduate	18	8.2		M	SD
Ph.D	12	5.5	duration of disease	9	6
no response	55	25	duration of marriage	16	8

Baldwin, Bishop (1983) to evaluate the family performance. In order to add the reliability of the tool, 7 items were added to three sub-scales of the primary 53-item version. The tool scoring is carried out based on a four score scale of I agree completely, I agree, I disagree, and I completely disagree and it can be answered by family members who are above 12 years old. The tool includes the following sub-scales based on the dimensions of Mac master model of family function: 1) Problem solving, 2) Relationships, 3)Roles, 4) Effective responsiveness 5) Effective conflict, 6) Behavior control, and 7) Overall performance.

Psychometric properties

The validity of the questionnaire was investigated by Mohammadizadeh and Malek Khosravi (1385) in Iran and Cronbach's alpha coefficient of sub-scales was obtained as follows: problem solving: 0.72, relationship: 0.70, roles: 0.71, affective involvement: 0.73, emotional response: 0.71, behavior control: 0.66, and overall performance: 0.82. Its differential and simultaneous validity coefficient were also calculated and reported favorable.

The differential reliability of the tool was also obtained with a meaningful difference between family assessment device scores of students and those whose one of relatives (sister, brother, child, father, or spouse) were hospitalized in a psychiatric hospital. The findings of another study on seniors (60 to 69 years old) also showed that there is a meaningful correlation between this tool scores and marital adjustment scale, which indicates the simultaneous validity of the test (Yousefi, 1391).

The validity coefficient of the tool is as follows: (problem solving: 0.68) (Relationships: 0.57) (Roles: 0.63) (effective responsiveness: 0.67) (effective conflict: 0.77) (behavior control: 0.79) (overall performance: 0.70)

Hardiness scale

Hardiness inventory (Kobasa, 1990) is a50-item questionnaire which includes 3 sub-scales of commitment (16 items), control (17 items), and challenging (17 items) and is scored in a 3 point

scale. **Commitme nt/Control/Challenging** (Hekmatpour, 1383).

Psychometric properties

Maddi's findings (according to Kosaka Mamoritaka, 1996) confirmed the above three scales by the factor analysis and reported an acceptable reliability and validity for hardiness inventory. The data analysis showed that the validity coefficients of sub-scales of commitment, control and challenging (challenge) is respectively 0.70, 0.52, and 0.52 and for the whole hardiness inventory is equal to 0.75. Fank (1992) has also obtained the validity coefficients for the scales as 0.79, 0.78, and 0.64.

The questionnaire has psychometrically been examined by Ghorbani (1373) in Iran and the validity coefficients for control, commitment, challenge and the whole hardiness feature has been obtained as 0.70, 0.52, 0.52, and 0.75 respectively.

The study of Najjarian (1380) has obtained alpha coefficient for the whole sample, girl subjects and boy subjects respectively equal to 0.76, 0.76 and 0.74. The validity of retest was obtained for the whole sample as 0.84 after six weeks.

In order to evaluate the reliability of hardiness tool, Kobasa (1998) has calculated its correlation with Back depression questionnaire and general health questionnaire and obtained r=0.73 and r=0.59 respectively. The results of the factor analysis to investigate the reliability in Iran have also confirmed the existence of the three factors (Mikaeili, 1392).

The validity coefficient of the tool is as follows: (challenging: 0.54) (commitment: 0.83) (Control: 0.75) (total score: 0.86)

Connor-Davidson Resilience Scale

Reviewing research resources in the time period of 1979-1991 on the area of resiliency, Connor-Davidson resilience scale (2003) was prepared. The questionnaire has 25 items which is scored in a six point scale between zero (totally incorrect) to five (always correct).

The results of the factor analysis indicate that the test has five sub-scales: 1) The notion of individual fitness, 2) Trusting individual's instincts/tolerating negative emotion, 3) Positive acceptance of change and secure link, 4) Control, 5) Spiritual effects (Ghorbani, 1391).

Psychometric properties

Investigation of psychometric properties of the scale in six groups of general population, refers to primary care section, psychiatric outpatients, patients with problem of generalized anxiety disorder and two groups of stress patients after an accident, shows that the results have been very good and have had high discrimination validity which can be used in research and clinical situations. Validity of Connor and Davidson has reported the scale Cronbach's alpha coefficient as 0.89 and the retest validity coefficient in a four week period as 0.87 (the same reference).

The scale has been normalized by Mohammadi (1384) in Iran and the validity coefficient has been reported as 0.89 by Cronbach's alpha method. On the other hand, its correlation with hardiness scale of Kobasa has been positive and meaningful while it has been negative and meaningful with the perceived stress and vulnerability scales with respect to Shyhan stress. In addition to that, it didn't have any meaningful correlation with the scores of Arizona sexual experience scale before and after the experience. The issue indicates its discriminative reliability (the same reference). The validity coefficient of the tool is as follows: (positive acceptance of change and secure link: 0.81) (The notion of individual fitness: 0.83) (Trusting individual's instincts/tolerating negative emotion: 0.77) (Control: 0.74) (spiritual effects: 0.70) (total score: 0.76).

Hope questionnaire

Snyder hope scale (2003) evaluates an individual's hope as a relatively constant personal characteristic (Khalaji, 1386). The test consists of 12 items and two sub-scales of agency thinking and Pathways thinking which is scored in an eight point scale from completely agreeing to completely disagreeing and the score ranges from 8 to 64 (Ghorbani, 1388).

Psychometric properties

Many studies indicate the validity and reliability of the questionnaire (Briant &Vangrost, 2004). The retest coefficient has been equal to 0.80 for periods longer than 8 to 10 weeks (Snyder & Lopez, 2007). The internal coordination coefficient of agency thinking and pathways thinking sub-scales was respectively between 0.71 to 0.76 and 0.63 to 0.80 (Robelski and Snyder, 2005). Snyder et al. (2000) reported the total validity as 0.85 through retest and after three weeks, while it was equal to 0.81 and 0.76 respectively for agency thinking and pathways sub-scales. In another study on 18-21 year old students, the validity coefficient was respectively obtained as 0.76 and 0.88 for agency thinking and pathways sub-scales (Alexander & Onwuegbuzie, 2007).

Through Cronbach's alpha, the validity of the test for Iranian students' population has been respectively reported as 0.82, 0.79, and 0.88 for the whole scale, agency thinking sub-scale, and pathways sub-scale (Ghobari Bonab, Lavasani & Rahimi, 2007). In Khalaji's study, the validity of the scale was respectively obtained as 0.70 and 0.74 through Cronbach's alpha and retest after one month. In addition, the internal coordination obtained from Cronbach's alpha was respectively reported as 0.74 and 0.62 for agency thinking and pathways thinking sub-scales (Ghorbani, 1388).

In a study, Kermani et al. (1390) reported the validity obtained from Cronbach's alpha for the whole scale, agency thinking sub-scale and pathways thinking sub-scale as 0.86, 0.77, and 0.79 respectively.

The validity coefficient of the tool is as follows: (Hope: 0.86).

Daily spiritual experience scale

Daily spiritual experiences scale (Android & Tersi, 2002) was made to prepare a multi dimensional tool of spirituality so that it can effectively be used in health studies which examine various areas of religion and spirituality. The scale evaluates an individual's perception of a superior force (Allah, God) in their daily life and of an interaction with the beyond of material world creature. In addition, it also measures the issue of how ideas and beliefs are a part of features of moments of life from a spiritual or religious perspective and includes concepts which are not limited to any special interest. Daily spiritual experiences scale has so far been translated to numerous languages and various studies have been conducted on it (Taghavi & Amiri, 1389).

The scale consists of sixteen items which evaluates concepts such as relationship, joy and a sense of excellence, power, comfort, God's help, God's guidance, receiving God's love, sense of wonder, thanksgiving, love with compassion and feeling of closeness to God. Its short six item form has also been used in studies (Ibid).

Determination of the validity of the scale has been carried out using three methods of retest, splitting and internal coordination. Some studies have also been conducted on the reliability of daily spiritual experiences scale so far. Luke's medical center in Chicago (Shahabi & Pawel, 1999) carried out a number of psychometric analyses of the 16 item form as a part of the study of women across the national scale in various locations and of various ethnicities. The findings of the studies indicated that daily spiritual experiences has a meaningfully positive correlation with Scheirer's optimism scale (Scheirer,Carver, & Bridgs, 1994) and Berkman's

scale of perceived social support (Sieman & Berkman, 1988). Also, daily spiritual experiences were accompanied more with higher scores of short form-36 rating of quality of life (Mc Horni, Wier, Lou & Sherborn, 1994) (Ibid).

The validity coefficient of the tool is as follows: (Spiritual experiences: 0.91).

Moral foundations questionnaire

Moral foundations questionnaire (Hythe & Graham, 2007) consists of 30 terms which has been adjusted to evaluate and asses the five-fold dimensions. According to Hythe and Graham, these five dimensions are basic and fundamental dimensions of ethics in various ethnic, racial, and linguistic cultures and identities. Five sub-scales of the questionnaire are:

1)Care, 2)Damage, 3)Equity (justice), 4) Loyalty to the group, 5) Respect for authority, and 6)Sincerity (Seifi et al., 1391).

In order to determine the validity of the questionnaire using retest method, 123 students of Southern California University having passed 37 days on average (with an amplitude of 28 to 43 days), values of 0.71, 0.68, 0.69, 0.71, and 0.82 were respectively obtained for the dimensions of care and damage, equity, loyalty to the group, respect for authority, and sincerity. The coefficients obtained through retest for each dimension were close to the coefficients obtained through Cronbach's alpha. Analyses conducted by other scales, such as Schwartz values survey to determine divergent reliability, indicate that each dimension of the questionnaire has a strong predictive reliability (Seifi et al., 1391).

The total validity coefficient of the scale in the study of Seifi Ghozloo (1391), where 125 couple presented, was obtained as 0.79 using Cronbach's alpha and it was respectively equal to 0.58, 0.79, 0.61, 0.70, and 0.73 for the sub-scales of care/ damage, equity (justice), loyalty to the group, and respect for authority and sincerity, which shows the suitable internal coordination of the questionnaire. The validity coefficient of the tool is as follows: (Care: 0.61) (Equity: 0.60) (Loyalty: 0.66) (Respect: 0.57) (Sincerity: 0.71) (Total score: 0.90).

Data collection method

In the present study, questionnaires were developed as six forms and completed by the spouse of the person with MS. In order to collect data and implement the study, eight psychology students (five graduates and three undergraduates) were selected based on their individual experience and capabilities and having been taught the way of implementing and completing the study scales and how to communicate with patients, they completed the questionnaires.

Having consulted MS

Research Center of Sina Hospital, private offices, MS society of Iran in Tehran, MS society of Iran in Karaj, and Support Community for MS Patients in Tehran and obtaining the consent of the centers and participants, the questionnaires were delivered to them. Some participants completed the questionnaires on location and some others, due to physical conditions, completed them at home and delivered them by examiners' telephone follow-ups.

Method of data analysis

In order to answer the research questions, the following statistical methods have been used:

- Statistical characteristics of groups and set of items of questionnaires were determined using common method of descriptive statistics,

- The validity coefficients of the questionnaires were estimated through - calculation of internal coordination (Cronbach's alpha).

- Path analysis was used to test the fitness of extended models of family performance.

- Pearson correlation coefficient and multiple regression were used to investigate the relationships

between the study variables.

- The statistical methods were analyzed using the software packages of SPSS and LISREL.

Results

In order to investigate the causal relationship between explaining variables of family overall performance, structural equations model or covariance structural models were used. Based on these models, the hypotheses related to causal relations of variables can be tested. In other words, the structural equitation model tests the relations between definite and assumed structural conditions. In order to extend and test the main study model, it was necessary to precede the following stages: 1- Investigating and making sure of the establishment of the assumptions of the structural equations model, 2- Investigating the regression relationship between the study variables, 3- Extending and testing the study model based on theoretical and empirical foundations.

1) Investigation the structural equations assumptions in the study model

In order to implement the structural equations, it seems necessary to make sure firstly that the statistical assumption of such models are established. In this section, the most important structural equations assumptions and how to meet them is described.

a) Measurement of variables in the gap level: For this purpose, the raw scores obtained from the measurement of variables were converted to factor scores with a zero mean and unit standard deviation based on Anderson and Rabin's method (1956, according to Hooman, 1384) and by the use of the LISRELsoftware.

b) Low multicollinearity of extrinsic variables: The results obtained from calculation of correlation coefficients (first order) between the studied extrinsic variables in table 10 indicate that the assumption of multicollinearity being low is established for the study models of the research because the highest correlation coefficient of the matrix has been obtained as 0.636 (between hope and resiliency).

c) The same distribution (homogeneity of variance) of intrinsic variables: Since the present sample volume is big enough in comparison with the number of studied variables (200 people), one can also make sure that these assumptions are met. Because of observation of the main assumptions of the structural equations model, the process of data analysis and explanation of the model is presented later.

As it is seen in table 2, the correlation coefficient of hope and resiliency is higher than other variables (0.636). In addition, other important correlation coefficients which indicate a relatively good relation, is the relationship between resiliency and hardiness (0.493) and the reverse coefficient of the relationship between hope and hardiness (0.536). Other correlation coefficients are average or mild. What is quite clear is the weak and insignificant relationship between psychological factors and moral foundations and spirituality. Observation of other correlation

Table 2. correlation coefficients between independent and mediator variables of the study

		1	2	3	4
1	Resiliency	-			
2	Hope	0.636**	-		
3	Moral foundations	-0.013	0.017	-	
4	Spirituality	-0.031	0.058	0.266**	-
5	Hardiness	0.493**	-0.536**	-0.90	-0.045
	**P<0.01	*P <0.05			

Table 3. Descriptive indexes and Colmogrov-Smirnov normalization test of scales involved in the study

Sub-scales	M	SD	Skewness	Kurtosis	D
Family overall performance	2.04	0.49	0.20	0.21	0.69
Hardiness	1.91	0.33	-0.38	-0.049	0.055
Resiliency	2.35	0.74	0.50	-0.12	0.089
Hope	4.35	0.81	-0.30	0.016	0.065
Spiritual experiences	6.33	0.94	-0.54	0.68	0.049
Moral foundations	3.28	0.70	-0.22	-0.18	0.067

coefficients in table 10 indicates that the range of these coefficients is relatively limited.

2) Descriptive statistics of the study variables

In this section, each of the study variables are separately analyzed from psychometric characteristics point of view so that the factors are examined based on social, cultural, and psychological features of the studied sample group and their final factor structure is determined for responding to the main question of this study. For this purpose, the following steps were respectively executed: 1) Calculation of characteristics of descriptive statistics of total scores, 2) Analysis of the scale questions based on statistical features of the items including mean, standard deviation, and diagnosis capability or correlation coefficientwhole scales, 3) Estimation of validity coefficients through internal coordination index (Cronbach's alpha)

Descriptive indexes

Descriptive indexes together with the test of distribution normalization of the study scales scores are shown in table 3.

Data on Table 3 shows that the overall performance does not obey the normal distribution, and has a positive skewness.The data indicate that the total score distribution is normal and the sample group members have reported their general hardiness feature at a relatively high level. The kurtosis index (height) shows that the total score distribution has a kurtosis close to normal.

The data of the table indicate that the total scores of resiliency do not obey normal distribution and have a positive skewness, which shows that the sample group members have reported their resiliency feature at a relatively low level. The kurtosis index (height) also indicates a negative kurtosis which is more than normal distribution height.

The data show that the hope scale distribution obeys the normal distribution, while the scores of spiritual experiences scale does not obey the normal distribution and has a negative skewness, which indicates that the sample group members have reported their spiritual experiences feature at a high level. The kurtosis index (height) of spiritual experiences is nearly equal to the normal distribution, while the hope scale distribution is higher than the normal height.

The data indicate that the scores of spiritual foundations do not obey the normal distribution and have a negative skewness, which shows that the sample group members have reported their moral features at a relatively high level. The kurtosis index (height) of the distribution also shows that the height is less than normal distribution.

3) Examination of regression relations of the study variables

The relationship between moral foundations and spiritual experiences with family

Table 4. Summary of the step by step regression to explain family overall performance based on moral foundations and spiritual experiences

Variable	R2	β	B	SE
	family overall performance			
moral foundations	0.006	0.081	0.056	0.049
spiritual experiences		-0.018	-0.011	0.042

performance

For a better understanding of the relationship between the studied variables, especially the relationship between mediator variables (moral foundation and spiritual experiences) with dependent variables (family performance) and also the relationship between independent variables (predictive with mediator), multiple regression was used before implementing path analysis models. On the other hand, due to the predictive moral foundation and spiritual experiences with the score obtained from the family performance questionnaire, the regression method was also used. The results of the analysis are shown in Tables 4.

As it is seen in Table 4, the relationship of family overall performance is not meaningful through variables of moral foundations and spiritual experiences. Therefore it can be concluded that these two variables cannot affect family overall performance directly.

The relationship between psychological variables and spiritual experiences and moral foundations

In order to examine the relationship between predictive variables and the variables of spiritual experiences and moral foundations, which play the mediator in the present study, the model of multiple regression has been used and its results are shown in table 5.

As it is seen in table 5, the value of variance determined for these two variables are respectively equal to 4.5% and 12.5%, which is relatively weak. Therefore predictive variables cannot predict any

Table 5. Summary of the step by step regression to explain family overall performance based on moral foundations and spiritual experiences

	moral foundations				spiritual experiences			
variable	R2	β	B	SE	R2	β	B	SE
Hardiness	0.045	-0.092	-0.193	0.176	0.126	-0.043	-0.104	0.194
Resiliency		0.025	0.027	0.104		-0.092	-0.115	0.114
Hope		0.049	0.036	0.066		0.118	0.102	0.073
**P<0.01*P<0.05								

Table 6. Summary of the step by step regression to explain family overall performance based on psychological variables

		overall performance		
Variable	R2	β	B	SE
Hardiness		**-0.289	-0.421	0.106
Resiliency	0.283	**-0.181	-0.137	0.063
Hope		-0.142	-0.74	0.040
**P<0.01 *P<0.05				

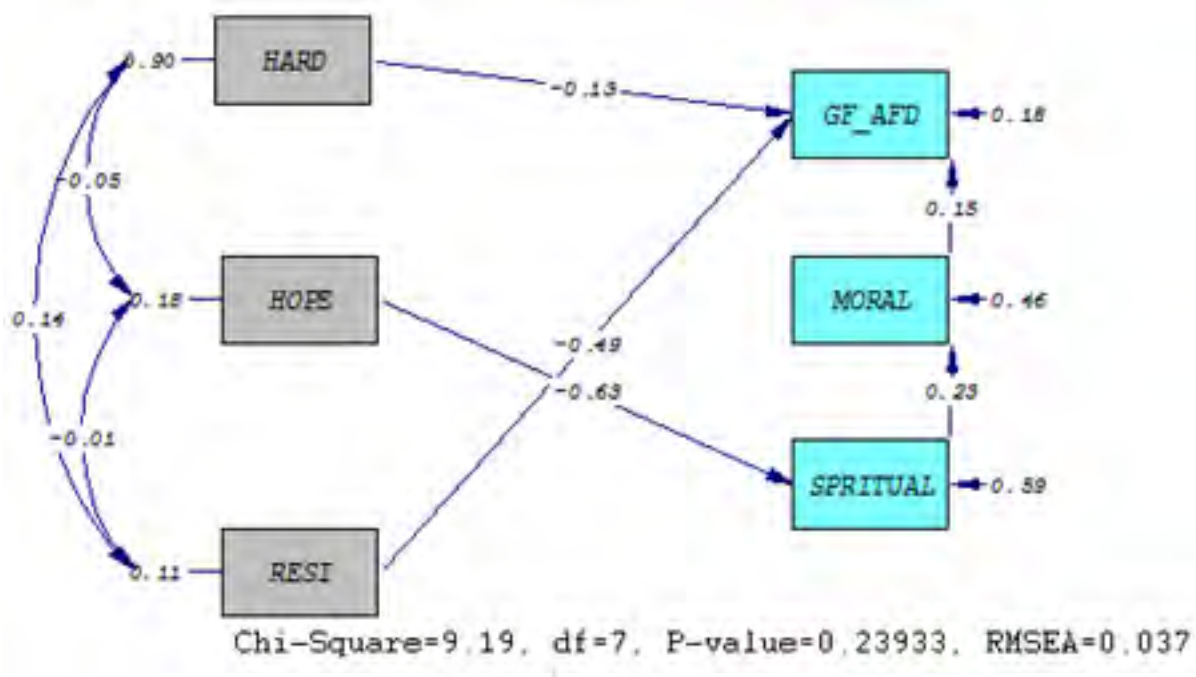

Figure 2. the diagram and path standard coefficients in the adjusted model of family overall performance

of two variables of moral foundations and spiritual experiences.

The relationship between psychological variables and family performance

In order to study the direct relationship between independent psychological variables and sub-scales of family performance, the multiple regression models has been used, the results are shown in Table 6. As it is seen in Table 6, among the predictive variables, the two variables of hardiness and emotional difficulties have a meaningful regression relationship with the six sub-scales of family performance including: overall performance, problem solving, relations, roles, effective responsiveness, and effective conflict. The highest explanatory coefficient is related to overall performance with 28% and the lowest one to problem solving with 19%. However, the variable of behavior control is explained and predicted by the two variables of hardiness and hope. The value of the coefficient is quite considerable and equal to 66%. On the other hand, other predictive variables do not have any meaningful relationship with the sub-scales of family performance.

4) Extension and testing the study model

As it is seen in figure 2, the effect path from spiritual experiences variable to overall performance variable through moral foundations (β_1=0.23) has been obtained meaningful. The effect of the variable of hope on overall family performance is indirect and through spiritual experiences and moral foundations. The effect of the two variables of hardiness and resiliency are the only ones with direct insignificant coefficient. Therefore, it can be said that the two variables of hardiness and resiliency (γ_1=-0.13, γ_3=-0.63) have direct effects on the overall performance and the variables of hope and spiritual experiences have indirect effects.

The square k index of the model is equal to 9.19 and is not statistically meaningful (p=0.24). The ratio of square k to degree of freedom (7) is less than 2 and equal to 1.31, which is in accordance with the acceptable criteria of Bayern (1989) and Bentler (1993).

The indexes of Goodness-of-fit Index, Comparative fit index, and Adjusted Goodness -of-fit Index are also equal to 0.99, 0.99, and 0.97 respectively which are significant and indicate the suitable fitness of the data. Root Mean Square of variance of Error Approximation for the model is also less than 0.05 (0.037) and based on credible criteria (Brown& Codek, 1993). It can be concluded that the degree of model approximation in the population is not large. Expected cross validation index is equal to 0.23, while this value is equal to 0.26 for the saturated model, which is in accordance with the criterion of Jorskag and Sorbon (2003).

In addition, the value of square of multiple correlation (R^2) for the studied model was obtained as 0.35, which shows that nearly 35% of sub-scale variance is explained by the study final model.

Discussion and conclusion

The main question of the study is whether psychological variables (hardiness, resiliency, and hope) as independent or extrinsic variables affect family overall performance through two variables of moral foundations and spiritual experiences as mediator (intrinsic) variables.

As it was said, the obtained results indicate that the effect of hardiness and resiliency on family overall performance is direct and the effect of the psychological variable of hope is indirect because in the mentioned model, hope, passing through spirituality and ethics path, affects family overall performance. What is quite obvious is that among the psychological variables, the highest relationship is between hope, spirituality, and ethics. It means that the variable of hope originally has spiritual basis which are dependent on an individual's meaning of life. Therefore the path from hope to spiritual experiences and moral foundations was a predictable path which was realized.

However, what seems as a very considerable point in this study is the path from spiritual experiences to moral foundations and family overall performance. It means that spiritual experiences and moral foundations are both regarded as equivalent mediator variables. In addition, the direct effect of spiritual experiences on family overall performance was not meaningful in the development of the model and it should have surely affected family performance through moral foundations.

What is also very important is that among effective paths with 35% of explanation coefficient, the path from hope to spiritual experiences and moral foundations and then the increase of family overall performance was quite notable.

Hardiness acts as a mediator between stressful events and sickness and reduces the possibility of disease symptoms outbreak. A hard person takes responsibility to make their life meaningful (Kobasa, 1979). Resiliency is a result of bargaining and interaction between people and their environment in disastrous and miserable conditions (Parto, 1389). Hope is the most important moral characteristic. Hope is regarded as a process of experience, a spiritual or supernatural process of reasonable thoughts and a communication process. Hope is an important spiritual need and is very significant for successful confrontation (Motamedi, & Mohammadabadi, 1388).

The results of the study indicated that there is a positive and meaningful relationship between hope to life and hardiness (Hosseini, 1388). In a study, Jo Ki Wi Kim (1997) realized that there is a relation between life quality and hope of cancer patients. Numerous studies have shown that hopeful people use cognitive strategies with positive self-talk, reading books full of moral and spiritual virtues, imagination of promising images, listening to sprit catching music and humor when tolerating pain and suffering from crises or negative events in their lives (Bahari, 1390). People with higher hardiness react more adaptively to stressful situations. In a study called the effect of teaching resiliency on mental well-being of patients with MS, Shirin (1392) demonstrated that teaching resiliency is

meaningfully effective on psychological well-being of MS patients in the areas such as autonomy, self-acceptance, objectivity and orientation, environmental mastery, self growth, and positive relations with others. Resiliency is related to mental health, preventing symptoms of stress disorder from relapsing and becoming chronic after an accident, life quality and well-being (Connor, & Davidson, 2003). In addition, it can be said that mental health and hope play an important role in life satisfaction and mental adaptability (Jafari et al., 2010), and strengthening hardiness components, we can help people to manage their stresses (Izadi Tammeh, 1389). The results of the study was aligned with the studies of Taheri et al. in 2014, Jafari et al. in 2010, Grif and Derwalt in 2010, Yadav in 2010, Nooroddinv & et al. (1393), Shirin (1392), Najafi (1392), Zahedbabolan et al. (1390), Bahari (1390), Khosravi (1385), Werthington et al. (1997), Chen (1996), Hamid (1389), Hosseini, 1388, Ghorbani and Dejkam (1373) and Lambert et al. 1989 as was mentioned before, while it was not aligned with the studies of Seydi et al. 1390, and Garmezi et al. (1991).

Since hardiness, resiliency as well as hope and spirituality are effective on life quality and family performance, the effect of the model on the increase of family overall performance through the increase of moral foundations is very significant and it should not be forgotten that this study was conducted on all patients with MS. Some of them are increasing divorce rate among couples one of whom has MS. The present study, which was done on the patients' spouses, helps the single patient to find a suitable person for their future life and also those who are married and have a problematic marriage life. It is possible to improve family overall performance of patients with chronic disease and especially MS patients by enhancing spirituality that leads to the enhancement of morality in families and also by development of positive thinking psychological area such as hope and resiliency.

References

Amir Beidokhti, A, & Erfani, A., (2002). "Investigation of the relationship between hardiness and job burnout of professor of Semnan University from management psychology perspective. "*Journal of human science department of Semnan University*, 2, 144-166.

Asghari, F., & Ghasemi Joobneh, R., (2014), Examination of the relationship between moral intelligence and religious orientation with marital satisfaction of married teachers. *the quarterly of family consultation and psychotherapy*, 4(1), 65-84.

Bahari, F., (2011). *Foundations of hope and hope therapy*, First edition, Tehran, Danjeh.

Brairwaite V. (2004). The hope process and social inclusion. *Political and Social Science*, 5, 92-128.

Cassidy, T. (1999). *Stress, cognition and health*. London: Routledge

Conner, K. M., & Davidson, J. R. T. (2003). Development of anew resilience scale: The Conner-Davidson ResilienceScale (CD-RISC). *Depression and Anxiety*, 18, 76-82.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broden- and– build theory of positive emotions. *American Psychologist*, 56, 218- 226.

Garmezy, N., & Masten, A. S. (1991). The protective role of competence indicators in children at risk. In E. M. Cummings, A. L. Greene, & K. H. Karraker (Eds.), *Life- span developmental psychology: Perspectives on stress and coping* (pp. 151-174). New Jersey: Lawrence Erlbaum Publishers.

Ghaednia Jahromi, A. (2013). Effectiveness of teaching seeking an order strategies, an emotion process in temptation, cognitive coping, emotional schemes and impulsivity of people with substance abuse, single case study, Master Thesis, Kharazmi University of Tehran, 56-63.

Ghorbanali, M., Marandi, A., Zarei, H., (2010). Determination of the relationship between faith and psychological hardiness, *two quarterlies of Islam and psychology studies*,4(6), 63-74.

Ghorbani, N., Dojkam, M., (1994), Relation of hardiness, type A behavioral pattern and coronary prone disorders behavior (type 2), Medical *Journal of Shahid Beheshti Medical Science University*, 3, p. 90.

Golchin, M., Nasiri, M., Najmi, B., Bashardoost, N., (2001), Relationship between family performance and some of psychological characteristics of female and male adolescents, 4, 300-302.

Goodarzi, M., Navvabinejad, S., Mohsenzadeh, F., (2008). Effectiveness of group counseling with citrate communicative approach on inefficient couples' performance, *Journal of Women (Women's Studies)*. 1. 57-74.

Haghshenas S. J., (2009), family pathology, pub Office for Women's studies..

Hales, D. (1999). *An invitation to health*. Pacific Grove,CA: Brooks/Cole Publishing Company. U.S.A

Hamid, N., (2010), Relationship between psychological hardiness, life satisfaction and hope with academic performance of pre-university female students, *Journal of Applied Psychology*, 4 (4), 101-116.

Hosseini, S. M., (2006). The relationship between life, hope and hardiness of students (girls and boys of Islamic Azad University, Gachsaran branch, Master thesis of Islamic Azad University, Ahvaz branch.

Bentler, P. M. (1993). Estimates and tests in structural equation modeling. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications*, pp. 37–55.

Hurst S, Koplin-Baucum S. A., (2005). pilot qualitative study relating to hardiness in ICU nurses: hardiness in ICUnurses. *Dimens Crit Care Nurs*; 24(2): 97-100.

Izadi Tammeh, A., (2010). "Comparison of the effect of teaching patience, problem solving and a combination of hardiness components of students of a military university". *Applied psychology quarterly*,4, 101-116.

Jafari, E. & Etal, (2010), Life satisfaction, spirituality well-being and hope in cancer patients, *procedia social and behavioral scinese*, 5, 1362-1366.

Kerlinger, F. N., Pedharz, A. J., (2012), *Multi variable regression in behavioral study*, Translated by Saraei, H., Third edition, Samt, Tehran.

Khosravizad, B., Dadkhah, A., Rezazadeh, M., Rahgozar M., (2013), Correlation between hope and life quality of HIV patients referring to Welfare Organization clubs in Tehran and Kermanshah, Monthly *Journal of Medical Science University of Kermanshah*,17 (10).

Kline, R. B. (2005). *Principles and practice of structural equation modeling*, edition 2, New York & London: Guilford Press.

Kobasa, S. C. (1979). Stressful life events, personality, and health: Aninquiry into hardiness. *Journal of Personality and Social Psychology*, 37, 1-11.

Maddah Karani, S. Z., Elahi T, Fathi Ashtiyani A; (2013). of psychological well-being based on spirituality and resiliency structures of students, *Journal of behavioral science*,7 (4), 355-361.

Milbury K, Badr H, Fossella F, Pisters KM, Carmack C. L. (2013). Longitudinal associations between caregiver burden and patient and spouse distress in couples coping with lung cancer. *Supportive Care in Cancer*. 1-9.

Mohebbi Nooroddinvand, M. H., Shahni Yeylagh, M., Pasha Sharifi, H., (2014), Relationship between psychological capital (hope, optimism, resiliency and self-efficiency) with the goals of academic development and performance of the first year students, *Journal of study on educational programming*, 11(13), 61-79.

Motamedi Mohammadabadi, S., (2009). Investigation of the relationship between hope and skills of problem solving with academic performance of female veterans and non-veterans students of human science of third grade high school of Isfahan, Master thesis, Azzahra University.

Najafi, F., (2013). Effectiveness of the solution oriented method on resiliency and sense of coherence of MS patients, Master thesis, Human Science Department of Semnan University.

Parto M., (2010), aide, resiliency and the condition of drug consumption among vulnerable adolescents:

Assessment of the predictive model of mediator variables roles and effect mechanisms. Ph.D Dissertation of health psychology. Faculty of Psychology and Educational Sciences of Tehran University.

Rafati, Sh, Rejeh N, Ahmadi vash T; , (2014), Moral intelligence of medical students of medical science universities of Tehran, Journal of Medical Ethics, 8 (27), p. 71-91.

Sadat S. J., Allimohammadi N, & Abazare P. (2006), Theexperiences of patients with multiplesclerosis. Esfahan, Univpersity of medicalsciences, College of Nursing & Midwifery,p. 82 (Persian).

Seifi, S. J, (2012), Moral Foundations Questionnaire (MFQ30), Pooya examination, Tehran.

Seydi, Mohammad Sajjadi. Poorebrahim, Taghi, Bagherian, Fatemeh, Mansour, Ladan. (1390). Relationship between family spirituality and its resiliency with mediation of relation quality in the family. Quarterly of psychological methods and models, 3 (5), p. 63-79.

Shirin, Z., (2013), Effect of teaching resiliency on mental well-being of patients with multiple sclerosis, human science university, research and science branch, Markazi province.

Taghavi, S. M. R., & Amiri, H., (2010), Investigation of psychometric properties of daily spiritual experiences scale, *Islamic education quarterly*, 5 (10), 151-167.

Taheri, A. Ahadi H., Lotfi Kashani F., Ahmadzade Kermani R.,(2014), Mental Hardiness and Social Support in life Satisfaction of Bresst Cancer Patients, Procedia- Social and Behavioral Sciences, 159, 406-409.

Veenhoven, R، (1996) ،happy life expectancy: Anew comprehensive measure ofquality of life in nations, *Social Indicators Research*.166 157- ,69 ،

Yadav S, (2010), perceived social support, hope, and quality of life of persons living with HIV/AIDS: a case study from Nepal.Qual Life Res, 19(2): 157-66

Zamanzadeh V, Heidarzadeh M, Oshvandi Kh andLakdizaji S. (2007), [Relationship between quality of life andsocial support in hemodialysis patients in ImamKhomeini and Sina educational hospitals of TabrizUniversity of Medical Sciences] Persian. Med J TabrizUniv Med Sci; 29(1): 49-54.