

Developing and Standardizing Marital Instability Measurement Test for Couples

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Abstract

Background: Divorce is the most common manifestation of severe conflict, and over half of the couples who seek advice will finally get divorced.

Objectives: The present study aimed at developing and standardizing Marital Instability Measurement test for couples.

Methods: This is a developmental – psychometric research and accordingly, using theoretical bases and the existing literature, a questionnaire consisted of 6 components and 21 items was prepared and confirmed by the experts in the field. Statistical population of the current study included couples with marital instability in Tehran, who attended the Police Counseling Center. 400 people answered the research questionnaire. After excluding incomplete questionnaires, 320 questionnaires were analyzed by convenience sampling method.

Results: After collecting data and inserting them into the software, firstly explanatory factor analysis was conducted on the obtained data and then the extracted items for the studied components were confirmed through Confirmatory Factor Analysis test.

Conclusion: Accordingly, we can say that the research questionnaire has good validity and reliability and can be used by other researchers in future works.

Keywords: Couples, Developing, Instability, Marital, Measurement, Standardization

1. Background

Divorce is the most common manifestation of severe conflict, and over half of the couples who seek advice will finally get divorced (1). According to official statistics, of every 1000 marriages in Iran about 200 cases lead to divorce and Iran has been introduced as the fourth country in the world in terms of divorce to marriage ratio (2). Multiple factors affect the incidence of divorce including economic, legal, and psychological factors as well as internal and external stress factors of which individual and psychological factors are of special importance; this is because the above-mentioned factors are associated with all aspects of individuals' lives namely education, job, and interpersonal functions (3).

The results of one study concluded that ordinary couples are significantly different with those seeking divorce as regards neuroticism, openness to experience, sense of duty, and in all 9 subscales of Symptom Checklist-90 (SCL- 90) (4). Fincham and Beach (2010) conducted a study on a total of 150 couples and concluded that attributions are correlated with depression and distress in couples. They also found that favorable and unfavorable attributions are correlated with marital satisfaction and depression, respectively. Evidence from longitudinal studies indicates that attribution style can both satisfy and distress couples; in other words, the reason for adjustment or non-adjustment of couples is their attribution style (5).

Another study conducted in Iran concluded that

behavioral disorders, new institutions and values, institutional support, not knowing each other before getting married, economic weakness, and cultural differences of couples are effective factors in divorce (6). Further, studies have suggested that there is a significant relationship between personality traits (7), family violence (8), emotional and spiritual intelligence (9), and tendency towards divorce.

Increased rate of divorce in Iran, especially in big cities like Tehran has rung alarm bells for our contemporary society; because given that divorce is a precursor to many problems, if the current trend continues, our society would undergo social crises in a not too distant future. According to figures provided by the State Welfare Organization-Deputy of the Office of the Social Disadvantaged Individuals' Affairs, divorce had a very slow ascending trend between 1992 and 1996 and then, this trend became almost constant; from 2001 onward, it has been more accelerated compared to the previous years. In 2009, according to Director General of the Office of Demographic Statistics and Information – National Organization for Civil Registration, divorce had a 13– percent growth compared to 2008, while divorce rate in 2010 had a 9.1 percent growth as compared to 2009. In other words, one divorce case has been registered against each 6.5 marriages. Figures provided by National Organization for Civil Registration also suggest that Tehran with a divorce rate of 2.6 in each thousand has the first place among all Iranian cities (10), which indicates marital instability among couples and we need to have an accurate understanding about its exact distribution

and also factors affecting it; to do so it is essential to use appropriate tools. Questionnaires as tools for collecting the required research data have always been of great importance. It is important because any measurement and study needs its special own tool; one data collection tool is questionnaire.

One of the questionnaires used to study marital instability was developed by Edwards et al. (1987). In 1987, Marital Instability Index (MII) was prepared by Edwards et al. for assessment of marital instability rate. This scale which is consisted of 14 expressions has been designed for measuring marital instability, especially the likelihood of the incidence of divorce. MII is based on the idea that while measuring the instability of marriage and the likelihood of divorce, one must consider both levels, that is, behaviors and cognitions. This scale can be used by counselors as a counseling tool in identifying more accurately the predicted results as regards specific marital relations. However, the question that arises here is that unfortunately the above questionnaire is external and as anyone knows, culture and cultural contexts have such a determining role in this regard that an external questionnaire would not be able to study it carefully and thoroughly. In this regard, in the present study, we sought to develop a test in this area; in other words, this research aimed at developing and standardizing marital instability measurement test for couples, so that based on which we could design validity and reliability test.

2. Objectives

The present study aimed at developing and standardizing Marital Instability Measurement test for couples.

3. Methods

The present study is a developmental– psychometric research.

Research Population and Sample

Statistical population of the present study consisted of all couples with marital instability living in Tehran, who attended the Police Counseling Center during the second half of 2015 (n = 560), of which a total of 400 people were selected as research sample by convenience sampling method. These 400 people answered the research questionnaire. After excluding incomplete questionnaires, 320 questionnaires were analyzed. The inclusion criteria were related to those couples reoffered to Police Counseling Center during the second half of 2015. The other criteria are related to marital instability of couples.

Data Collection Tool

The following methods were applied in the present study for data collection:

Library studies

for collecting data about theoretical bases and literature of the research from library resources, articles, and the related books.

Field Research

In order to collect data for meeting the research objectives, first we studied the theoretical bases of the topic and then the components of marital instability of couples were extracted and accordingly the research questionnaire was designed and studied. A total of 6 components were extracted, for which 21 items were designed. [Table 1](#)

4. Results

Descriptive results of the study showed that the sample was composed of 58.8 % females and 41.2 % males, of which 55.6% had a diploma and lower, 7.8 % had an associate degree, 25.3 % had a bachelor's degree, and 11.2 % had a master's degree. Findings suggest that 25 % of the studied individuals had met their spouse through their friends, 55.6 % through their families, 12.5 % through their university or work place, and 6.9 % through social networks. As regards age, 14.4 % of the individuals were under the age of 25, 22.5% were between 25 and 30 years of age, 25.6% between 31 and 35, 12.2% between 36 and 40, and finally 25.3 % were over 40. 39.4 % of the individuals were married for 1 to 5 years, 17.5 % for 6 to 10 years, 15% for 11 to 15 years, 8.1% for 16 to 20 years, and 20 % for 20 years or over. In terms of the number of children, 34.7 % of the studied individuals had no children, 28.1 % had one child, 21.9 percent had two children, 8.8 percent had three children, and 6.6 percent had more than four children. 89.1 % of the studied individuals said that they had no other record of marriage, while 10.9 % stated that they had married twice.

Then Factor Analysis was performed in order to answer the question that if the set of the items of the researcher-made marital instability measurement questionnaire had proper Construct Validity. The term Factor Analysis is not a single concept, instead it includes rather various and complicated stages in which each of the three stages of preparing correlation matrix, extracting the primary factors, and rotation is performed. In order to achieve the final solution and discover simple and interpretable factors for evaluating correlation matrix, one can use Measure of Sampling Adequacy along with Bartlett's Test of Sphericity. The result of Bartlett's Test of Sphericity for correlation matrix of variables is presented in [Table 2](#).

As seen in the above [Table 2](#), the value of kmo is 0.712 and Bartlett's Test of Sphericity is significant. Small values indicate that the correlation between paired variables cannot be explained by other variables. Thus, according to Sampling Adequacy and

Table 1. Research Questionnaire Structure

Variable	Number of Items	Items. No
Relationship, Conflict Resolution, Aggression	4	1 to 4
Sexual Factors	4	5 to 8
Individual Specifications	4	9 to 12
Mutual Support	3	13 to 15
Beliefs and Expectations	3	16 to 18
Attachment Style	3	19 to 21

Table 2. The value of kmo and the result of Bartlett's Test of Sphericity for correlation matrix of variables

	Statistic
Kmo Test for Sampling Adequacy	0.712
Bartlett's Test of Sphericity	Chi-Square 2680.588
	df 210
	Sig 0.000

Table 3. The extent to which each item has in common with the questionnaire

Item	Sharing Rate	Item	Sharing Rate	Item	Sharing Rate
1	0.690	8	0.550	15	0.584
2	0.784	9	0.553	16	0.770
3	0.703	10	0.633	17	0.642
4	0.535	11	0.708	18	0.687
5	0.692	12	0.558	19	0.732
6	0.748	13	0.712	20	0.811
7	0.718	14	0.742	21	0.664

Table 4. A summary of initial statistical indicators using Principal Component Analysis (PCA)

Component	Total	Eigen Value	
		Variance (percent)	Variance (Cumulative Percent)
1	2.724	12.973	12.973
2	2.683	12.778	25.751
3	2.647	12.603	38.354
4	2.083	9.919	48.273
5	2.043	9.728	58.273
6	2.035	9.690	67.691

significance of Bartlett's Test of Sphericity, data correlation matrix is appropriate for Factor Analysis. So, performing Factor Analysis on the basis of correlation matrix is justifiable. In Table 3, the extent to which each item has in common with the questionnaire is presented.

Results of the above Table 3 as regards the sharing rate of each item with the whole questionnaire show that the values related to the correlation of the items with the whole test in line with main components analysis are above 0.30, which indicates a high correlation between each item and the questionnaire and its suitability for Factor Analysis. Regarding correlation matrix, Tabachnick, B.G., and Fidell, L.S (1996), consider results above 0.30 in correlations as proper. In Factor Analysis, only factors are extracted that explain the greatest value of variance. The first principal component explains the greatest value of variance, and other components are extracted in order of importance, that is, based on the variance they explain. In practice, one can exclude factors whose Eigen value (The sum of the squared loadings of each variable with a given factor) is smaller than 1. The bigger the Eigen value of a factor is, that factor would explain

more variance (11).

In this study, Principal Component Analysis was used for extracting factors. Table 4 shows that 6 factors have Eigen values bigger than 1. In addition, first factor could account for (explain) about 12.973

% of total variance of a set of 21 items (of the questionnaire). Second, third, fourth, fifth, and sixth factors accounted for 12.778, 12.603, 9.919, 9.728, and 9.690 percent of the 21-item variance, respectively. Further, total variance accounted for a 6-factor set from the 21-item set was 67.691 %. To extract the number of factors, one should take into account the value of the variance explained by each factor, especially Scree Plot which will be discussed later:

A close look at Figure 1 reveals that only 6 factors of the set of factors that make up the questionnaire are above gradient of the line and other factors are in a close range to each other. After performing Varimax rotation, factor of matrix data reached the best combination of the structure and items; results are given in the table below: Table 5

Fitting the items associated with factors according to the factors mentioned in the research-made questionnaire shows that first factor with 4 items

Table 5. Values of factor loading of the variables observed in the six-fold factors

Item	Factors (Components)					
	1	2	3	4	5	6
1	0.873					
2	0.790					
3	0.769					
4	0.709					
5		0.855				
6		0.835				
7		0.812				
8		0.715				
9			0.828			
10			0.775			
11			0.719			
12			0.716			
13				0.847		
14				0.787		
15				0.729		
16					0.879	
17					0.810	
18					0.693	
19						0.832
20						0.824
21						0.761

Table 6. Reliability of the research questionnaire

Variable	Number of Items	Cronbach's alpha
Relationship, Conflict Resolution, Aggression	4	0.826
Sexual Factors	4	0.825
Individual Specification	4	0.778
Mutual Support	3	0.737
Beliefs and Expectations	3	0.763
Attachment Style	3	0.789
Total Questionnaire	21	0.755

Table 7. Fitting indexes of the confirmatory model

Result Fitting	Research values	Criterion	Fit Indexes		
Good Fit	2.88	≤ 3	χ^2/df	χ^2/df	χ^2/df
Good Fit	0.077	≤ 0.1	RMSEA	RMSEA	RMSEA
			A	A	A
Good Fit	0.94	≥ 0.9	NFI	NFI	NFI
Good Fit	0.96	≥ 0.9	NNFI	NNFI	NNFI
Good Fit	0.93	≥ 0.9	CFI	CFI	CFI
Good Fit	0.93	≥ 0.9	IFI	IFI	IFI
Good Fit	0.97	≥ 0.9	GFI	GFI	GFI
Good Fit	0.93	≥ 0.9	AGFI	AGFI	AGFI
Good Fit	0.032	≤ 0.08	RMR	RMR	RMR
Good Fit	0.032	≤ 0.08	SRMR	SRMR	SRMR

related to “relationship, conflict resolution and aggression”, second factor with 4 items related to “sexual factors”, third factor with 4 items related to “individual specifications”, fourth factor with 3 items related to “mutual support”, fifth factor with 3 items related to “beliefs and expectations”, and sixth factor also with 3 items related to “attachment style” are identified. In the following, we will discuss the reliability of these factors and then we will consider the confirmatory results of their items.

Results of the Table 6 regarding the reliability of the research questionnaire show that the prepared questionnaire has good reliability, and the correlation of the responses has sufficient accuracy. Therefore, Confirmatory Factor Analysis is performed in order to confirm these factors.

Abbreviations of the above Table: RMSEA= Root

Mean Squared Error of Approximation; NFI= Normed Fit Index; NNFI= Non-Normed Fit Index; CFI= Comparative Fit Index; IFI= Incremental Fit Index; GFI= Goodness of Fit Index; AGFI= Adjusted Goodness of Fit Index; RMR= Root Mean Square Residual; SRMR= Standardized Root Mean Square Residual.

Fit indexes of the confirmatory model of the research questionnaire show that the items of the questionnaire are suitable and the questionnaire has an appropriate capability Table 7 in measuring the research variables. (Figure 2-3)

Scree Plot

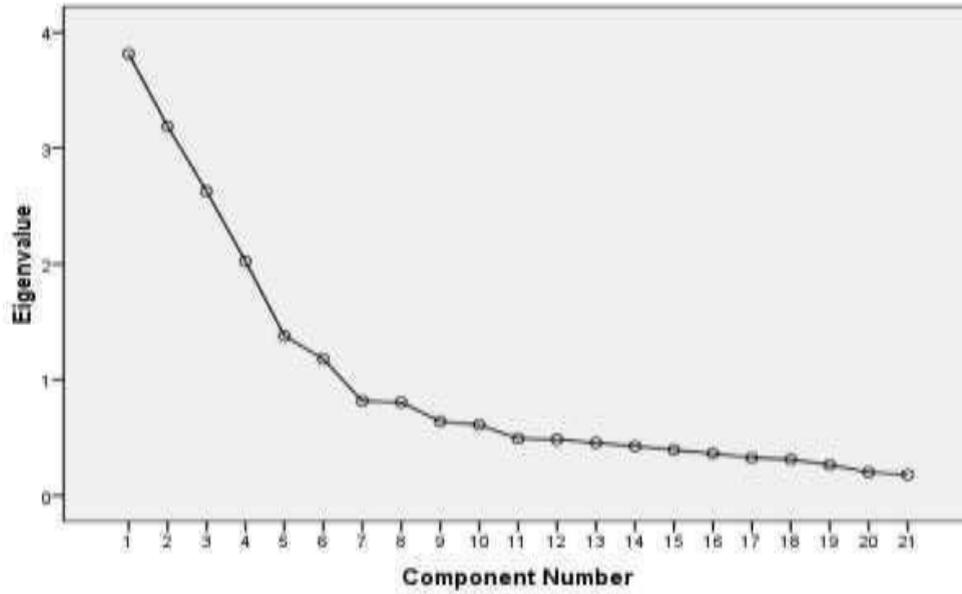


Fig 1. Scree Plot for determining the number of factors

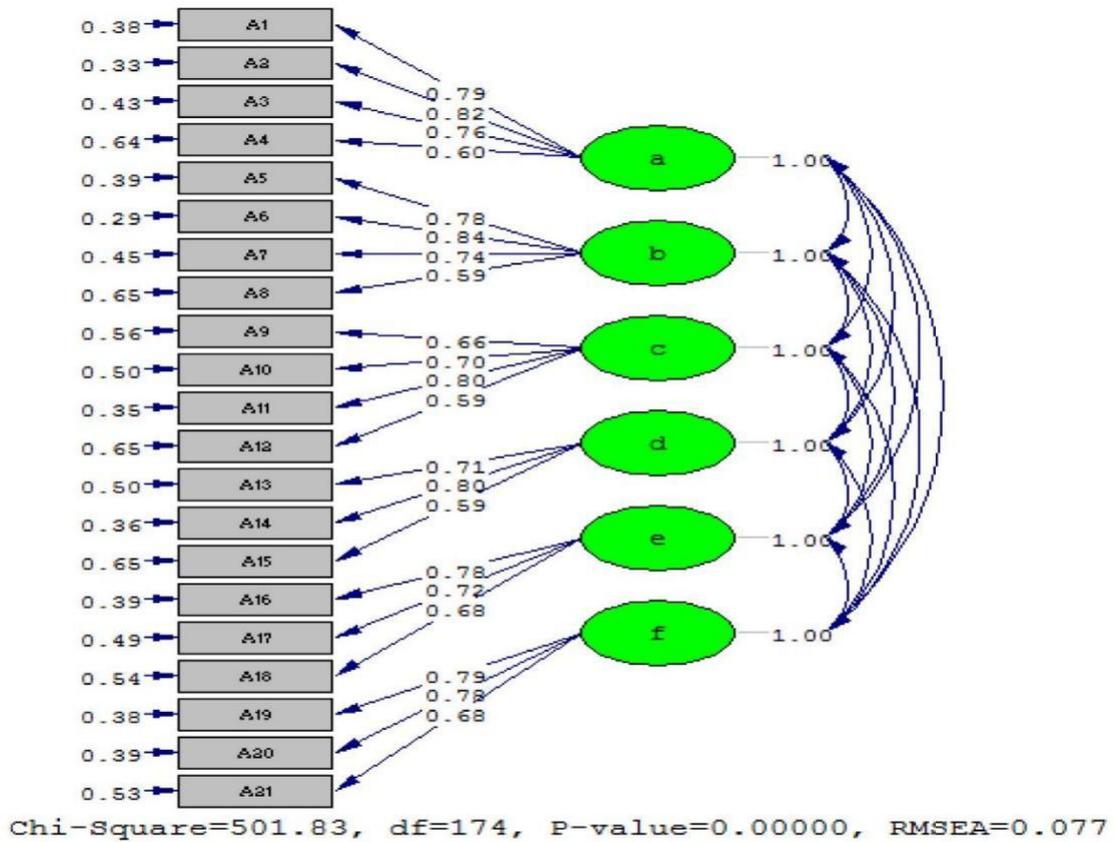


Fig 2. Confirmatory model of the overall questionnaire in standard mode

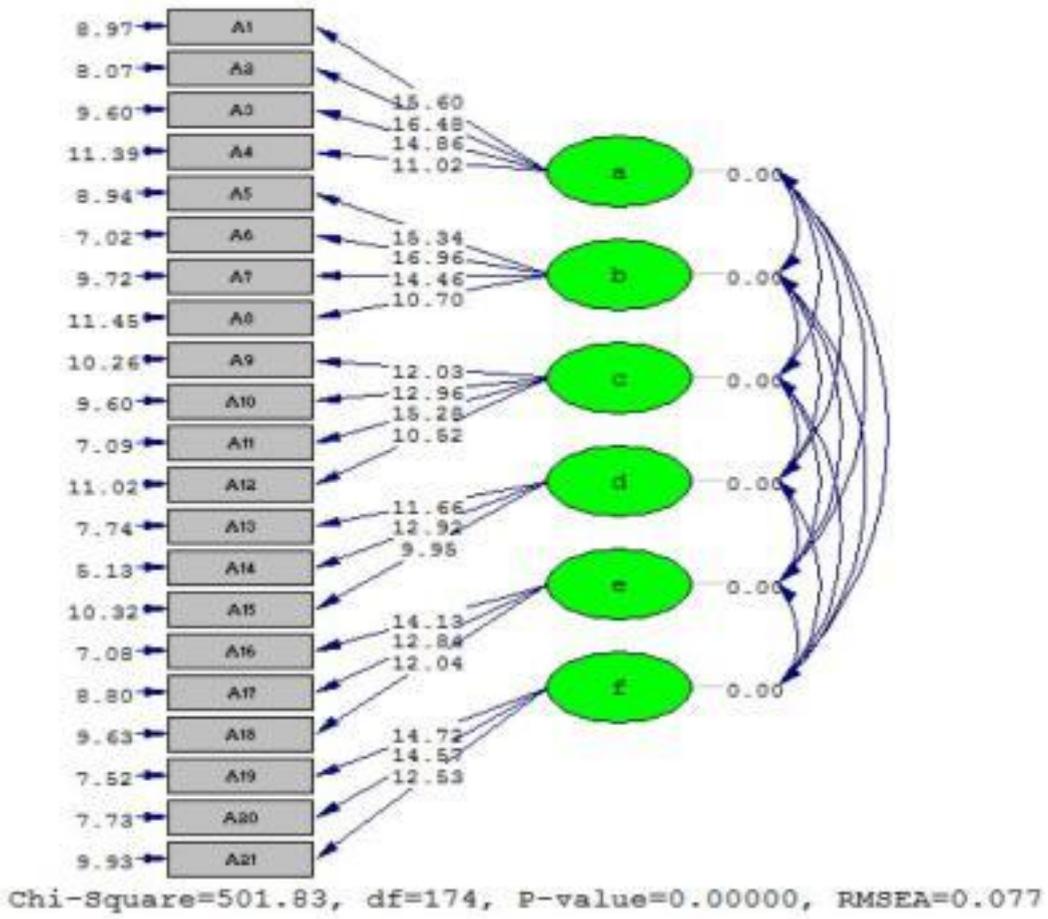


Fig 3. Confirmatory model of the overall questionnaire in standard mod

5. Discussion

The basis for measuring divorce in any society is the ratio of the number of divorces in each year to the number of marriages in the same year (12,13).

Divorce is the main cause of the breakdown of the structure of the most fundamental part of the society, that is, family and it is also considered as one of the phenomena of human life. The importance of addressing the issue of divorce among couples is because 1- It is a psychological phenomenon, since it affects not only mental balance of two people (couples) but also their children, relatives, and friends 2- It is an economic phenomenon, since it leads to family breakdown as an economic unit, and disruption of mental balance of humans has devastating impacts on their economic life. 3-It is a phenomenon that affects all aspects of population in a society, since on one hand it affects the quantity of population because it breakdowns the only legitimate and principal unit of reproduction, the family, and on the other hand, it has an effect on the quality of population since it hands over to the society children who are deprived of the blessings of the family. 4- It is a cultural phenomenon. From another point of view, divorce is a communicative phenomenon(14).

Fincham and Beach (2010) conducted a study on a total of 150 couples and concluded that attributions are correlated with depression and distress in couples. They also found that favorable and unfavorable attributions are correlated with marital satisfaction and depression, respectively. Evidence from longitudinal studies indicates that attribution style can both satisfy and distress couples; in other words, the reason for adjustment or non-adjustment of couples is their attribution style (5).

As it was mentioned in introduction section, the results of the study showed behavioral disorders, new institutions and values, institutional support, not knowing each other before getting married, economic weakness, and cultural differences of couples are effective factors in divorce (6). Further, studies have suggested that there is a significant relationship between personality traits (7), family violence (8), emotional and spiritual intelligence (9), and tendency towards divorce. All of these results related to the results of the current study.

The association of divorce with other social harms is sometimes a reciprocal relationship, that is, some social harms can both cause and be caused by divorce (a cause and effect relationship); for example, addiction can be a cause of divorce but in a different situation, divorce is capable of playing the role as an agent (cause) for the occurrence of addiction (effect) as well (14). Increase in divorce is directly associated with such factors as industrial development, economic system, urbanization, and women's literacy level and employment. Additionally, breakdown of traditional ties of extended family paves the way for increased divorce (15). Unemployment of husband, not having a steady job, and inability to procure means of subsistence are also effective in increasing divorce.

Unemployment of husband, not having a steady job, and inability to procure means of subsistence are also effective in increasing divorce. Divorce has a direct and close relationship with othersocial corruptions, especially with addiction, depravity, and corruption of men or women. Disruption of traditional society coupled with maintaining some traditions such as different marriageable age of men and women help the increasing rate of divorce; according to studies, early marriage would more likely lead to divorce(10).

According to figures provided by the National Organization for Civil Registration, marriage and divorce and the ratio of divorce to marriage over the past 40 years (1967 to 2007) indicate that divorce has had a decrease between 1 to 3 percent in Iran during the time period 1971-1978. The highest percentage of divorce in the 1970s was in 1975 and 1976, and the lowest percentage was in 1978 and 1979. The ratio of divorce in the mentioned decade decreased from 9 % in pre- Revolution to an average of 6 % in post-Revolution in 1979; however, it gradually increased and returned to the previous 9% once more (12). According to the above figures, we may conclude that an increase in divorce in 1978 and 1979 was the result of public attention to the course of the Islamic Revolution and political developments in 1978, which is the main cause of decreased number of divorces over those years. Thus, following major changes in the structure of Iranian society, family foundation was strongly influenced by its surrounding environment and gradually, though not with the same speed as before, the divorce rate went up. In this regard, we can consider the beginning of the imposed war between Iraq and Iran, during which again we can clearly observe a change in the structure of divorce. Although divorce rate slowly increased during Post- revolution years, these changes have been more tangible and considerable since 2001 (7), which indicate the importance of attention to this area and attempting to lessen its consequences. To do this, the first step is to measure marital instability among couples. Due to the lack of an appropriate tool in the literature, in the present study, we decided to develop and standardize a marital instability measurement test for couples.

Fitting the items associated with factors to factors mentioned in the researcher-made questionnaire showed that first identified factor with 4 items was associated with "relationship, conflict resolution, and aggression", second identified factor with 4 items was associated with "sexual factors", third identified factor with 3 items was associated with "beliefs and expectations", fourth identified factor with 3 items was associated with "mutual support", and finally, fifth identified factor with 3 items was associated with "attachment style". Then, the validity and reliability of these items were confirmed. Accordingly, we can say that the research questionnaire has good validity and reliability and can be used by other researchers in future works.

Limitation

As the same as other studies, this study has some limitations. This study conducted in Tehran. In order to generalize the study, it is suggested that the validity and reliability of the questionnaire will be conducted in other cities. In addition, the sampling of this study was random sampling. It is suggested that more accurate sampling method should be conducted for this questionnaire.

6. Conclusion

Accordingly, we can say that the research questionnaire has good validity and reliability and can be used by other researchers in future works.

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Conflicts of interest

None.

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