

Developing and Normalizing Afrooz Effort-Centered Thinking and Result-Centered Thinking Scale (AERS)

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ABSTRACT

No tool has ever been developed or validated concerning the attitude orientation towards the relationships among family members that can employ the new approaches elaborated for measurement of effort-centered thinking vs. result-centered thinking of spouses. This research is aimed to develop and validate an effective measuring tool for effort-centered thinking vs. result-centered thinking of spouses that would be compatible with healthy marriage approach and cognitive and attitudinal aspects of the couples, and would show higher degrees of appropriateness and adequacy in Iranian-Islamic cultural context. The questions of the scale have been prepared based on many years of clinical experiences and family counseling, and knowledge of the factors affecting the relationships of the spouses. Therefore, based on the theoretical principles of marriage psychology and clinical experiences, some questions were prepared and included. The developed scale was in the form of a five-point Likert scale along a continuum of choices (strongly agree, agree, no opinion, disagree, strongly disagree). In order to accomplish this objective, 472 people (236 females and 236 males) were selected from the families in the north, south, east, west and center of Tehran and were studied. The methodology of the research was the survey type one and the developed scale was called "Afrooz Effort-oriented Thinking vs. Result-centered Thinking Scale" (AERS) (2012). The results show the appropriate validity of this scale. Reliability coefficient of this scale was calculated using Cronbach's alpha method, which was 0.87 for effort-centered thinking subscale and 0.90 for result-centered thinking subscale. The scale was developed based on healthy marriage and cognitive-social approaches, and clinical experiences in the field of spouses' relationship, and it is suitable for research and clinical applications.

KEYWORDS: Scale, Effort-centered thinking, Result-centered thinking, Developing, Normalization.

INTRODUCTION

Studies conducted in different cultures have revealed that dissatisfactions and psychological and sensual repulsions are the main causes for spouse aversion, divorce and separation; and conversely, mutual psychological and sensual attractions of spouses ensure the comfort and happiness among spouses (Afrooz, 2006).

What is important in a marriage is the adaptability of the spouses and their satisfaction with the marriage. Marital satisfaction of couples has been focused on since 1990s (Bradbury et al., 2000). In fact, marital satisfaction is understood as intimate interpersonal relationships, which allow people to be accepted, valued, respected and loved, and to have opportunities for mutual relationships (Fletcher, 2002). Marriage quality means the spouses' ability to adapt to each other over time. Marital satisfaction is a function of successful marriage (Harper et al., 2000). Marital satisfaction involves having qualities such as love, commitment, honoring each other's efforts and physical satisfaction from life. Marital satisfaction is also related to the mutual interactions between man and woman in issues such as cooperation and empathy in parenting, communication, self-disclosure, supporting each other and the children, accepting sexual roles, and mobilizing each other. Environmental factors such as employment, financial status, and support network of spouses also constitute marital satisfaction (Sokolski and Hendrick, 1999).

According to Greeff (2000) adaptable couples are those who agree with each other to a great extent, are not too much concerned with the final results, but instead consider the efforts of their partner for conducting such issues, are satisfied with the type and level of their relationship and also with the quality of their free time, and have a good management of their time and financial affairs.

The secret of success for human being is feeling comfort and being effort-centered. We should educate ourselves and our children to be effort-centered in such a way that they will be their own rivals and compete with themselves, and at the same time to be friend with their friends. Interpersonal competitions increases anxiety but friendship increases comfort. Successful people should be calm; such a comfort is rooted in effort-centered attitude and motivation. Those who are successful adopt ethical, value-oriented and effort-centered attitudes. Effort-centered people are always successful, but not competition-oriented and result-centered ones. Even if result-centered people can experience advances, they will not have innovation in their works. Successful

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people are not vengeful; they are not after eliminating their rivals and are not result-oriented. They try to be effort-oriented, to be with friend with their colleagues and to be happy with the success of others.

Our society suffers from lack of a systematic program and proper educational model for couples. Although, family education has been initiated during recent years by many organizations such as Ministry of Education, but despite the relative effectiveness of such trainings, there are several major limitations: firstly, such educations are mainly focused on the role of parents, as well as on coordination between them and schools; educating couples in terms of adaptability with each other and learning how to communicate with the children are neglected. Secondly, these are not based on a systematic model and are perhaps mainly affected by the designers and educators. Thirdly, most of such trainings provide information and knowledge, and are less effective in changing attitudes and behaviors.

In this regard, i.e. attitude orientation within the framework of relationships among family members, no tool has ever been developed and validated that may employ the new approaches towards measurement of effort-centered thinking vs. result-centered thinking. Considering the issues raised, the present research is aimed to develop and validate an effective measuring tool for effort-centered thinking vs. result-centered thinking of spouses that would be compatible with healthy marriage approach and cognitive and attitudinal aspects of the couples, and would show higher degrees of appropriateness and adequacy in Iranian-Islamic cultural context. The questions of the scale have been prepared based on many years of clinical experiences and family counseling and knowledge of the factors affecting the relationships of the spouses.

The objective of this study is to develop and validate a scale for effort-centered thinking vs. result-centered thinking of spouses. For this purpose and based on theoretical principles of the psychology of marriage and clinical experiences in this field, some questions were prepared and included. The developed scale is in the form of a five-point Likert scale along a continuum of choices (strongly agree, agree, no opinion, disagree, strongly disagree)

In order to determine the construct validity of the effort-centered thinking vs. result-centered-thinking scale, principal component analysis (PCA) was used and the two components were found to have factor loadings greater than 0.3, which determined the total variance of the test. Cronbach's alpha method also was used to determine the reliability of the scale. Internal consistency coefficients for effort-centered thinking subscale and result-centered thinking subscale were 0.87 and 0.90 respectively, which means that both subscales have good and appropriate reliability and are applicable for various research purposes.

METHODOLOGY

The statistical population of the study included the couples who were living in Tehran. Given that the subject of this study was to develop a test, to achieve valid components, an adequate number of samples who could represent the population were selected and studied.

Sampling method was random cluster method. First, among the schools in north, south, east, west and center of Tehran five districts (i.e. district 1, 2, 4, 6 and 16) were randomly selected, and the participants were randomly selected from these districts. In this study, 400 couples among the parents of third grade students of those guidance schools voluntarily participated in the study, where 236 couples (472 individuals) filled out the questionnaires completely, and the collected data was analyzed. The mean age of females participating in the study was 39.44 years with a minimum and maximum of 28 years and 58 years respectively, while the mean age of males was 44.96 years with a minimum and maximum of 32 and 66 years, respectively.

Cronbach's alpha coefficient was used to assess the reliability of the scale. Construct validity of the scale was calculated using factor analysis. This was conducted by means of principal components analysis and varimax rotation with eigenvalues greater than 1.

Instrument

In this study, researcher-made effort-centered thinking vs. result-centered thinking scale developed using Likert method was employed. The scale contained 40 questions, 20 questions for testing effort-centered thinking and 20 questions for testing result-centered thinking. Validity and reliability of the scale are examined in this study and are reported in what follows. Some of the questions for the first component, i.e. effort-centered thinking, include: "It is important for a man or a women that his/her spouse do his/her best to meet the needs of his/her family, even if he/she fails to satisfy them completely." and "Head of the household can try to satisfy the needs of the family by providing good materials."

After reviewing the content of the questions of the second component, the component was called "result-centered thinking". One of the questions of this component is: "It is important for a man or a woman that his/her spouse can satisfy all of the needs of the family".

RESULTS

The descriptive data of the men and women participating in the study in terms of education is shown in Table 1.

Table 1. The descriptive data of the samples in terms of education

Group	Education degree	Frequency	Percent
Men	Diploma or lower	136	57.9
	Associate diploma	18	7.7
	Bachelor	58	24.7
	Master	17	7.2
	PhD	6	2.6
Women	Diploma	153	65.1
	Associate diploma	22	9.4
	Bachelor	48	20.4
	Master	12	5.1

According to Table 2, the KMO value obtained in this study is 0.891, which indicates the adequacy of the sampling for principal component analysis. Bartlett's test of sphericity (chi-square = 6536, degrees of freedom = 780 and significance level = 0.005) suggests that questions are significantly correlated and factor analysis is allowed. Therefore, the principal component analysis technique can be used.

Table 2. Values of KMO and Bartlett's test of sphericity

KMO	89 1/0	
Bartlett's test of sphericity	Chi-square	6536
	Degrees of freedom	780
	Significance level	0.0005

Table 3 shows the results of factor analysis and the components, factor loadings and the percentage of variance explained by "Afrooz Effort-oriented Thinking vs. Result-centered Thinking Scale". As can be seen in this table, two components of the "Afrooz Effort-oriented Thinking vs. Result-centered Thinking Scale" are extracted.

Table 3. Factor analysis of effort-centered thinking vs. result-centered thinking scale

Components	Extraction sums of squared loadings			Extraction sums of squared loadings		
	Eigenvalue	% of Variance	Cumulative (%)	Eigenvalue	% of Variance	Cumulative (%)
1	8.767	21.917	21.917	7.221	18.052	18.052
2	4.622	11.556	33.473	6.168	15.421	33.473

In order to assign the questions to the components, rotated factor loading for each question was used. Questions with factor loading greater than 0.3 included in components after varimax rotation; accordingly 20 questions of the scale were related to effort-centered thinking and 20 questions to result-centered thinking. Table 4 shows the questions and the assigned component, with rotated factor loading.

Table 4. Components of effort-centered thinking vs. result-centered thinking scale

Number of question	Rotated factor loadings for effort-centered thinking component	Rotated factor loadings for result-centered thinking component
1	0.442	0.396
2	0.520	0.432
3	0.419	0.504
4	0.541	0.575
5	0.548	0.561
6	0.583	0.641
7	0.453	0.603
8	0.542	0.623
9	0.543	0.713
10	0.561	0.692
11	0.549	0.688
12	0.528	0.716
13	0.590	0.724
14	0.450	0.314
15	0.470	0.523
16	0.656	0.676
17	0.632	0.499
18	0.603	0.642
19	0.416	0.484
20	0.647	0.488

By studying the content of the questions and using factor analysis for determining the factors of two-dimensional effort-centered thinking vs. result-centered thinking scale, two components were identified which were the same as the main component of the study, i.e. effort-centered thinking and result-centered thinking.

Concurrent validity. For computing the concurrent validity, along with the employing the effort-centered thinking vs. result-centered-thinking scale, "Afrooz marital satisfaction scale" also was applied on 235 couples. Correlation between effort-centered thinking vs. result-centered-thinking scale and Afrooz marital satisfaction scale was 0.369 and 0.189 respectively, which is significant at the level of $p < 0.001$, therefore the observed correlation between the two scales is significant with 99% confidence level.

The correlation coefficient between two subscales of the test, i.e. effort-centered thinking and result-centered thinking was 0.319 that is significant at the level of $p < 0.001$, therefore the observed correlation between the two subscales is significant with 99% confidence level.

Table 5. Reliability coefficients (Cronbach's alpha) for effort-centered thinking vs. result-centered thinking scale

Component	Number of Questions	Number of samples	coefficient alpha
Effort-centered thinking	20	470	0.87
Result-centered thinking	20	470	0.90

As can be seen in Table 5, Cronbach's alpha method was used to determine the reliability of the scale. Internal consistency coefficients for effort-centered thinking subscale and result-centered thinking subscale were 0.87 and 0.90 respectively, which means that both subscales have good and appropriate reliability and are applicable for various research purposes.

Table 6. The statistics

	Kurtosis		Skewness		Standard deviation	Mean	N	KS
Effort-centered thinking	0.225	0.537	0.113	-0.531	7.65118	88.3277	470	Z: 1.378 Sig: 0.843
Result-centered thinking	0.225	-0.280	0.113	-0.152	13.43234	70.6894	470	Z: 0.045 Sig: 0.477

The one-sample Kolmogorov-Smirnov test was used to test that whether the scores of the effort-centered thinking vs. result-centered-thinking scale are normally distributed or not. The results for effort-centered thinking subscale was ($p = 0.843 > 0.05$, $Z = 1.378$) and for result-centered thinking scale was ($p = 0.477 > 0.05$, $Z = 0.045$), indicating that the null hypothesis of normal distribution is confirmed.

DISCUSSION AND CONCLUSION

The effort-centered thinking vs. result-centered-thinking scale has been prepared based on many years of clinical experiences and family counseling and healthy marriage approach. In general, we can say that the scale has all the features of a valid and reliable test, and can be used for research, clinical and consulting purposes. The possible advantage of the scale is that clinical psychologists and family counselors can use it to understand the attitudes of their clients attending the family counseling sessions quickly and provide the strategies to solve the problems accordingly. It should be noted that the scale has been developed based on the samples living in Tehran, and for using it in other cases, it is necessary to be cautious and to consider the psychometric terms. This index enjoys a desirable reliability indicating its suitability for research and clinical purposes. Therefore, the results of this study confirms the effectiveness of "Afrooz Effort-oriented Thinking vs. Result-centered Thinking Scale" for Iranian population, especially those who live in Tehran.

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Afroz Two-dimensional Effort-centered Thinking vs. Result-centered Thinking Scale

1. Anyone can do his/her best to solve the emotional problem(s) of his/her family members.
 Strongly agree Agree No opinion Disagree Strongly disagree
2. Couples can make every effort to express their affections in any way they desire.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Couples should express their affections in such a way that it will be quite understandable by others.
 Strongly agree Agree No opinion Disagree Strongly disagree
3. Couples must try to give the gifts that are favored by each other.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Couples must give the gifts that are certainly favored by each other.
 Strongly agree Agree No opinion Disagree Strongly disagree
4. Successful couples are those who try to have a quiet and peaceful life.
 Strongly agree Agree No opinion Disagree Strongly disagree
- The couples who are able to live with peace and tranquility are successful.
 Strongly agree Agree No opinion Disagree Strongly disagree
5. It is important for couples to use their best endeavors to deal with their problems early in their lives to have a better future life.
 Strongly agree Agree No opinion Disagree Strongly disagree
- It is important for couples to be able to solve their own problems in early life so that they will have problem in the future.
 Strongly agree Agree No opinion Disagree Strongly disagree
6. Couples should try to do their responsibilities in life to have a successful life.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Couples should do all their responsibilities to have a successful life.
 Strongly agree Agree No opinion Disagree Strongly disagree
7. It is important for a man or a woman that his/her spouse do his/her best to meet the needs of his/her family, even if he/she fails to satisfy them completely.
 Strongly agree Agree No opinion Disagree Strongly disagree
- It is important for a man or a woman that his/her spouse can satisfy all of the needs of the family.
 Strongly agree Agree No opinion Disagree Strongly disagree
8. The head of the household can try to satisfy the needs of the family by providing good materials.
 Strongly agree Agree No opinion Disagree Strongly disagree
- The head of the household should satisfy the needs of the family by providing the best materials.
 Strongly agree Agree No opinion Disagree Strongly disagree
9. It is important for a man or a woman that his/her spouse try to manage the family income so that not only no shortage may be felt but also he/she can save some money.
 Strongly agree Agree No opinion Disagree Strongly disagree
- To a man or a woman, it is important that not only his/her spouse can afford normal expenses but also should have enough savings at any time.
 Strongly agree Agree No opinion Disagree Strongly disagree
10. It is important that students use their best efforts to be the best in every respect.
 Strongly agree Agree No opinion Disagree Strongly disagree
- A student is considered a good student only when he/she is the best in every respect.
 Strongly agree Agree No opinion Disagree Strongly disagree
11. Responsible parents are those who try so that their child's quality of life will be high, although this may not be possible for all fields.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Parents are known to be responsible only when their child's quality of life will be high in every respect.
 Strongly agree Agree No opinion Disagree Strongly disagree
12. The efforts of children in family works should be taken into account.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Children should be able to work in all of the family issues as much as their parents should.
 Strongly agree Agree No opinion Disagree Strongly disagree
13. Couples can work together to know the families of each other to reduce many problems.
 Strongly agree Agree No opinion Disagree Strongly disagree
- Couples should resolve all problems regarding their families completely.
 Strongly agree Agree No opinion Disagree Strongly disagree
14. Couples must realize that they should try to keep their parents satisfied as much as possible.
 Strongly agree Agree No opinion Disagree Strongly disagree
- It is important that the parents of the couples be completely satisfied with them.

- Strongly agree Agree No opinion Disagree Strongly disagree
15. When I think my personal to-do list, I feel like I've been tried to do my jobs and maybe I should try more.
 Strongly agree Agree No opinion Disagree Strongly disagree
 When I think my personal to-do list, I notice that everything is no perfect.
 Strongly agree Agree No opinion Disagree Strongly disagree
16. Couples should try to help each other in their works and responsibilities.
 Strongly agree Agree No opinion Disagree Strongly disagree
 Each spouse is responsible for his/her own works.
 Strongly agree Agree No opinion Disagree Strongly disagree
17. We need to try for better education of the children, but we should note that "all flowers are not in one garland".
 Strongly agree Agree No opinion Disagree Strongly disagree
 The right education is conducted only when the children will be the best.
 Strongly agree Agree No opinion Disagree Strongly disagree
18. It is important that couples try to understand each other's problems.
 Strongly agree Agree No opinion Disagree Strongly disagree
 Couples should be able to resolve the issues related to themselves and each other.
 Strongly agree Agree No opinion Disagree Strongly disagree
19. Couples should never have disagreements and everything always should be perfect.
 Strongly agree Agree No opinion Disagree Strongly disagree
20. Couples can try so that they live high on the hog, however, sometimes this will not happen.
 Strongly agree Agree No opinion Disagree Strongly disagree
 It will be disaster if a couple will not try to live high on the hog.
 Strongly agree Agree No opinion Disagree Strongly disagree
21. Worries of life can be reduced by trying and exchanging ideas.
 Strongly agree Agree No opinion Disagree Strongly disagree
 Life is something that we always had to be worried and concerned about because we are unaware of the future incidents.
 Strongly agree Agree No opinion Disagree Strongly disagree
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