A meta-analysis of extroversion and marital satisfaction

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Abstract

Introduction: It has been emphasized in different studies that personality traits of the couples are important in marital satisfaction and adjustment. However, there have been some inconsistencies and discrepancies in previous researches regarding the possible relationships between extroversion as a personality trait, and marital satisfaction, the present study was aimed at integrating the results of different researches, and assessing the size of effect of extroversion and marital satisfaction, by the use of meta analysis.

Materials and Methods: Twelve researches were selected from 20 researches which were acceptable according to their methodology. The selected researches were meta analyzed by a checklist. The total size of sample was 2535, and 12 size of effect was drawn from it.

Results: The findings have shown that the size of effect for the relationship between extroversion and marital satisfaction was equal to 0.024 ($P>0.001$). The size of effect was obtained as medium - low according to Kuhn table.

Conclusion: According to the obtained size of effect, extroversion as a personality trait has a significant relationship with marital satisfaction, and hence, it seems that extrovert couples have more marital satisfaction.

Keywords: Extroversion, Marital satisfaction, Meta-analysis

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Introduction

Family consistency depends on the quality of marriage and marital relationship. So, every problem related to marital satisfaction would disturb couples' calm on one hand, and may threaten the maintenance of family instruction on the other hand (1). Winch defined marital satisfaction as the accordance between expectations of marital life and what is really experienced in marital relationships. Some researches consider marital satisfaction as a multidimensional concept (2). Costa and McCrea believed that marital satisfaction can be affected by various factors such as personality traits, emotional, relational and motivational styles, and personal patterns of feedback. It is supposed that the factors are constant during adults' lifespan (3).

Today, several variables have been known to predict marital satisfaction. Among the variables, personal characteristics related to communications especially marital relationships, have attracted the attention of researchers (4). Actually, regarding several studies, it is extremely possible that marital relationship would be predicted based on personality features. So, exact investigation of the relationship between personality traits and marital satisfaction would be definitely important to help people to make rational decisions about selecting their spouse. It certainly required a comprehensive understanding of personality.

Personality refers to constant traits expressing in various situations (5). Costa and McCrea consider five main personality factors: neuroticism, extraversion, openness to experience, agreeableness and conscientiousness. Neuroticism refers to a tendency to experience anxiety, tension, commiseration, hostility, impulsivity, depression and low self-esteem. Extraversion refers to a tendency to be positive, assertiveness, be full of energy, and intimacy. Openness to experience refers to a tendency to curiousness, love art, artistic affairs, flexibility, and wisdom. Agreeableness refers to a tendency to forgiveness, gentleness, benevolence, empathy, consultation, humanism, and confidence. Conscientiousness refers to a tendency to be ordered,
The results of several longitudinal and cross-sectional studies have shown that the above-mentioned personality factors can predict marital satisfaction in marital relationships (7-12). Among the factors, three of them including neuroticism, extraversion and conscientiousness have a major role in prediction of the quality of couples' marital experiences and adjustment with marital situations (13). Among the three factors, extraversion has been considered as the most challenging variable in relation with marital satisfaction (14).

Whereas the relationship between extraversion and marital satisfaction has been reported positively significant in a few studies (15-17), some other studies reported the relationship as a negative or insignificant one (11,18,19). Also, the relationship between extraversion and happiness has been confirmed in some studies (11), while some other studies have showed no significant relationship between extraversion and marital adjustment neither for wives nor for husbands (10).

The results confirmed in the study of Cook for elderly couples too (20). Also, the results of the studies administrated in Iran are so controversial. On the one hand, several studies showed that there is a significant positive relationship between extraversion and marital satisfaction (21-34), but on the other hand, in some studies the relationship was computed as a significant negative one (30), and in some other studies it was reported insignificant (35-37).

Regarding the previous studies, the relationship between extraversion and marital satisfaction is not agreed among various studies administrated either in Iran or other countries. Thus, it seems that a meta-analysis is extremely needed to explain exact statistical facts about the relationship. Meta-analysis is a useful statistical method in which the results of several separated studies are considered unanimously, so its results are more exact than the results of each study separately (38).

In the method, effect sizes of various studies about a special subject are combined, so a researcher can investigate a controversial assumption mentioned in several studies with different results. The method is necessary to achieve a comprehensive view of relationships between psychological or social phenomena (39).

Regarding the fact that there is no agreed approach about the relationship between extraversion and marital satisfaction among different studies, the purpose of the study was to investigate the relationship through a meta-analysis of Iranian studies about the subject. Therefore, the question of the study is whether couple's extraversion can predict their marital satisfaction?

Materials and Methods

In the present study, regarding the aim of the study, Hunter and Schmidt's meta-analysis method was used (40,41). The meta-analysis of the present study consists of these stages:

1- Searching data bases. 2- Entering appropriate studies into the meta-analysis and removing unrelated studies based on standard criteria. 3- Investigating the effect size of each study. 4- Combining all the effect sizes to reach a total estimation of supposed relationships. 5- Computing the significant level of combined studies. 6- Comparing effect sizes of different studies based on their special features.

The statistical population of the study was all articles were published in scientific-research journals and master dissertations of Iranian universities with appropriate and standard methodology. Searching the studies was done with some keywords such as "marital satisfaction", "personality traits", "NEO personality inventory", and "extraversion". Also, several virtual databases including "sids.ir", "Noormags.com", "isc.gov.ir", "magiran.com", and "civilica.com" were used to search the studies.

Entry criteria of the study were: 1- Appropriate methodology (assumption making, standard research methods, statistical population, sample size, standard sampling method, instruments' reliability and validity, appropriate statistical methods) 2- Relevant subject (investigating the relationship between extraversion and marital satisfaction). 3- Using a correlational design. So, the studies which did not have the criteria were removed from the meta-analysis. Finally, 12 studies selected among 22 studies, and then the effect size of each study was computed. The sample size of the study included 2535 married people.

In the present study, the results of previous studies were changed into Pearson's correlational coefficients. In the next stage, the effect sizes were combined to each other, and finally a total effect size computed for all the studies. Effect size, indicates the rate of presence of a phenomenon in a society, so bigger effect sizes show more presence of the phenomenon in the society (38). Based on the Cohen's guidelines table (1988), effect sizes of 0.1, 0.3, and 0.5 are considered as low, moderate and
Research instruments

- Previous relevant studies: 12 Iranian studies, which had the necessary criteria to participate the meta-analysis, were selected.
- Content analysis checklist: the checklist consisted of the descriptive components of 12 studies. The components included: the subject of the study, researchers' names, sample size, significant levels for applied statistical analyses, research design (the research designs of all the studies were correlational), statistics and their rates (all the statistics were the correlational coefficient of "r"), the instruments of gathering information, and the reliability coefficients of the instruments.

The descriptive characteristics of selected studies for the meta-analysis are presented in Table 1.

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Researchers</th>
<th>The time of administration</th>
<th>Sample size</th>
<th>Statistic</th>
<th>Effect size</th>
<th>Sig</th>
<th>Instruments</th>
<th>Reliability</th>
<th>The correction of reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The relationship between personality traits and marital satisfaction</td>
<td>Shakerian et al</td>
<td>2010</td>
<td>240</td>
<td>r</td>
<td>0.491</td>
<td>1.001</td>
<td>1. Marital Satisfaction Inventory (MSI) 2. NEO.FFI</td>
<td>1. 0.92 2. 0.74</td>
<td>0.72</td>
</tr>
<tr>
<td>2 The prediction of marital satisfaction based on personality features and lifestyle</td>
<td>Fazel et al</td>
<td>2010</td>
<td>140</td>
<td>r</td>
<td>0.15</td>
<td>0.05</td>
<td>1. Marital Satisfaction Inventory (MSI) 2. NEO.FFI</td>
<td>1. 0.93 2. 0.77</td>
<td>0.21</td>
</tr>
<tr>
<td>3 The role of personality characteristics and marital satisfaction in career satisfaction</td>
<td>razavieh</td>
<td>2010</td>
<td>112</td>
<td>r</td>
<td>0.43</td>
<td>0.001</td>
<td>1. Enrich marital satisfaction inventory 2. NEO.FFI</td>
<td>1. 1.93 2. 0.77</td>
<td>0.60</td>
</tr>
<tr>
<td>4 The relationship between marital satisfaction</td>
<td>Jadidi and Rasool</td>
<td>2010</td>
<td>110</td>
<td>r</td>
<td>0.353</td>
<td>0.01</td>
<td>Islamic marital satisfaction inventory</td>
<td>0.87</td>
<td>0.35</td>
</tr>
<tr>
<td>5 The relationship between personality features and marital satisfaction</td>
<td>Jannati Jahromi et al</td>
<td>2010</td>
<td>200</td>
<td>r</td>
<td>-0.09</td>
<td>0.05</td>
<td>1. Enrich marital satisfaction inventory 2. NEO.FFI</td>
<td>1. 0.95 2. 0.81</td>
<td>0.11</td>
</tr>
<tr>
<td>6 The relationship between the big five personality factors and marital satisfaction</td>
<td>Razeghi et al</td>
<td>2009</td>
<td>200</td>
<td>r</td>
<td>0.009</td>
<td>0.05</td>
<td>1. Enrich marital satisfaction inventory 2. NEO.FFI</td>
<td>1. 0.95 2. 0.74</td>
<td>0.012</td>
</tr>
</tbody>
</table>
The relationship between personality features and interpersonal conflict-solving styles with marital satisfaction

Hosseininasa et al 2009 325 0.001 r 0.405 1. LWMAT 2. NEO.FFI

The relationship between 5 big factors of NEO.FFI and marital satisfaction

Gholikhani et al 2008 160 0.01 r 0.26 1. Enrich marital satisfaction inventory 2. NEO.FFI

The relationship between attribute styles and personality features with marital satisfaction

Asgari et al 2008 135 0.045 r 0.17 1. Enrich marital satisfaction inventory 2. NEO.FFI

The relationship between similarity and complementarity in couple's main personality aspects with marital satisfaction

Mohammadzadeh Ebrahimi et al 2008 174 0.01 r 0.343 1. Enrich marital satisfaction inventory 2. NEO.FFI

The relationship between personality and marital satisfaction

Ahadi 2007 400 0.05 r 0.08 1. Enrich marital satisfaction inventory 2. NEO.FFI

The relationship between personality features and personal-family factors with marital satisfaction

Atari 2006 339 0.001 r 0.333 1. Enrich marital satisfaction inventory 2. NEO.FFI

The appropriate studies presented in the table were coded based on chorological order. All analyses for meta-analysis were computed by Hunter and Schmidt's and without any software.

<table>
<thead>
<tr>
<th>g</th>
<th>d</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.126</td>
<td>1.122</td>
</tr>
<tr>
<td>2</td>
<td>0.304</td>
<td>0.303</td>
</tr>
<tr>
<td>3</td>
<td>0.959</td>
<td>0.953</td>
</tr>
<tr>
<td>4</td>
<td>0.780</td>
<td>0.775</td>
</tr>
<tr>
<td>5</td>
<td>0.180</td>
<td>0.180</td>
</tr>
<tr>
<td>6</td>
<td>0.018</td>
<td>0.018</td>
</tr>
<tr>
<td>7</td>
<td>0.889</td>
<td>0.883</td>
</tr>
</tbody>
</table>

**Results**

The main principal in a meta-analysis is to compute the same metric for all effect sizes and then computed a total mean of effect sizes. The same metric may be Cohen's "d", Glass's "g", or Pearson's "r" (38). In Table 3, all the metrics are computed for each study, but for computing the total effect size, "r" statistic are used.
Based on the results of the meta-analysis, extraversion is moderately correlated with marital satisfaction. Furthermore, in the meta-analysis, the rate of the ratio of standard error of variance and total variance (V/SEV=0.135) is less than the standard ratio (0.75). So the result shows that there are some moderator variables in the relationship between extraversion and marital satisfaction.

**Discussion**

Meta-analysis is a way for solving the complexities of different studies and understanding the relationships between variables (42). This study performed with the aim of finding the relationship between couple's extraversion and their marital satisfaction throughout several studies administrated in Iran. The results of the meta-analysis showed that the total effect size of the relationship between extraversion and marital satisfaction in couples is 0.24 based on "r" statistic which considered low to moderate. Also, the direction of the correlation is positive. The results are similar to a few previous studies such as Gholizadeh et al (28) and Asgari et al (29) that showed low to moderate positive relationships between the variables. Nevertheless, the results are partly different with the results of studies of Attari (25), Mohammadzadeh Ebrahimi et al (30), Hosseini nasab et al (31), Razavieh (32), Jodiri and Rasoolzadeh (33), and Shakerian et al (34) which indicated a moderate to high positive effect size for the relationship. Moreover, the results of the meta-analysis are completely different with the results of studies of Shiona and Levinson (16) and Jannati Jahromi (35) which indicated a negative relationship between extraversion and marital satisfaction (30, 39). Also, the results of this study is different with the results of Ahadi (36), Razeghi et al (37), and Fazel et al (24) which indicated no significant relationship between the variables.

Considering the comprehensive method of the study, the results are more reliable to conclude about the relationship between extraversion and marital satisfaction. Therefore, based on the results, although in some previous studies there were negative or insignificant relationships, at least in Iranian population the relationship between the variables should be considered as positive and significant. Also, the meta-analysis showed that there are some moderator variables in the relationship.

Based on previous studies, variables such as family and economic factors, age, couple's educational level, income, life-style, and other personality traits can be considered as potential moderator variables in the relationship between extraversion and marital satisfaction. Also, similarity or difference in extraversion is another significant variable which can be regard in the field. Mohammadzadeh Ebrahimi et al and Watson et al. (30,43) concluded that there is a significant positive relationship between the similarity in extraversion and marital satisfaction. However, Danesh (21), showed that the highest marital satisfaction can be expected in marriage of ambivert and introvert personalities.

The meta-analysis with combination of 12 previous studies and with 2535 sample size showed a positive significant relationship between extraversion and marital satisfaction. Thus, extraversion can be considered as a major variable in predicting marital satisfaction. A probable explanation is that extraversion comprises features such as tendency to be positive, assertiveness, being high-energy, intimacy etc. Thus, the characteristics help to increase the quality of relationships and satisfaction of couples. However, it is important to note that the effect size computed is low to moderate, so it is important to recognizing other important effective

**Table 3.** The results of the meta-analysis of the relationship between extraversion and marital satisfaction

<table>
<thead>
<tr>
<th>N</th>
<th>Mr</th>
<th>SDr</th>
<th>SEr</th>
<th>Z</th>
<th>P</th>
<th>SEV</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>0.24</td>
<td>0.176</td>
<td>0.050</td>
<td>4.724</td>
<td>0.001</td>
<td>0.004</td>
<td>0.031</td>
</tr>
</tbody>
</table>
The results of the meta-analysis can be useful for plans dedicated to train couples before and after marriage to have a sensible and satisfying marriage.

In the meta-analysis only one aspect of personality was considered as a predictor of marital satisfaction. However, other aspects of personality such as neuroticism, openness to experience, agreeableness, and conscientiousness may be important to predict marital satisfaction. Thus, for a comprehensive understanding of the relationship between personality aspects and marital satisfaction it is necessary to administer other meta-analyses considering several aspects of personality. The results can be helpful to counselors and psychologist who are in contact with couples and people who want to decide about their future marriage.

The limitations of the study were: lack of accessing more related researches; removing several studies due to lack of some necessary details such as reliability and validity of instruments and significant levels. Finally, it is recommended that the relationship between marital satisfaction and other its potential predictors be investigated through meta-analyses in the future studies.

Conclusion
It is important to note that the effect size computed is low to moderate, so it is important to recognizing other important effective factors. The results of the meta-analysis can be useful for plans dedicated to train couples before and after marriage to have a sensible and satisfying marriage.

References
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