Review Article

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

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,

rational and calm, and also to efficacy, confidentiality, self-regulation, and progressiveness (6).

The results of several longitudinal and cross-sectional studies have showed 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

big, respectively for "r" statistic.

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 1. The descriptive characteristics of selected studies for the meta-analysis

	Subjects	Researchers	The time of administration	Sample size	Statistic	Effect size	Sig	Instruments	Reliability	The correction of reliability
1	The relationship between personality traits and marital satisfaction	Shakerian et al	2010	240	0.001	r	0.491	1.Marital Satisfaction Inventory (MSI) 2. NEO.FFI	1. 0.92 2. 0.74	0.72
2	The prediction of marital satisfaction based on personality features and life-style	Fazel et al	2010	140	0.05	r	0.15	1.Marital Satisfaction Inventory (MSI) 2. NEO.FFI	1. 0.93 2. 0.77	0.21
3	The role of personality characteristics and marital satisfaction in career satisfaction	razavieh	2010	112	0.001	r	0.43	1.Enrich marital satisfaction inventory 2. NEO.FFI	1.0.93 2.0.77	0.60
4	The relationship between marital satisfaction	Jadidi and Rasool	2010	110	0.01	r	0.353	Islamic marital satisfaction inventory	0.87	0.35
5	The relationship between personality features and marital satisfaction	Jannati Jahromi et al	2010	200	0.05	r	-0.09	1.Enrich marital satisfaction inventory 2. NEO.FFI	1. 0.95 2. 0.81	0.11
6	The relationship between the big five personality factors and marital satisfaction	Razeghi et al	2009	200	0.05	r	0.009	1.Enrich marital satisfaction inventory 2. NEO.FFI	1. 0.95 2. 0.74	0.012

7	The relationship between personality features and interpersonal conflict-solving styles with marital satisfaction	Hosseininasab et al	2009	325	0.001	r	0.405	1. LWMAT 2. NEO.FFI	1. 0.90 2. 0.68	0.66
8	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	1. 0.93 0. 0.81	0.34
9	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	1. 0.95 2. 0.75	0.23
10	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	1. 0.93 2. 0.81	0.34
11	The relationship between personality and marital satisfaction	Ahadi	2007	400	0.05	r	0.08	1.Enrich marital satisfaction inventory 2. NEO.FFI	1. 0.91 2. 0.68	0.12
12	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	1. 0.92 2. 0.65	0.44

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.

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.

Table 2. The effect sizes of the studies

	g	d	r
1	1.126	1.122	0.491
2	0.304	0.303	0.15
3	0.959	0.953	0.43
4	0.780	0.775	0.353
5	0.180	0.180	0.09
6	0.018	0.018	0.009
7	0.889	0.883	0.405

8	0.531	0.529	0.26
9	0.347	0.345	0.17
10	0.733	0.730	0.343
11	0.160	0.160	0.08
12	0.709	0.707	0.333

The results of the meta-analysis of the study based on Hunter and Schmidt's method are presented in Table 3.

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

N	Mr	SDr	SEr	Z	P	SEV	V	
12	0.24	0.176	0.050	4.724	0.001	0.004	0.031	0.135

Based on the results of table3, the size of correlation between extraversion as predictive variable and marital satisfaction as predicted variable is 0.24. The amount can be considered low to moderate based on Cohen's table. Therefore, based on the results, with considering all the studies entered the meta-analysis, extraversion is moderately correlated 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

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.

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 administrate 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
1. Nejati H. [Marital psychology]. 10th ed. Tehran: Bikaran; 2010. (Persian)
2. Sousou SD. The role of agreeableness and neuroticism in marital satisfaction: Actor and partner contribution. Ph.D. Dissertation. State University of New York at Albany, 2004.
3. Costa PT, Mccrae RR. The five-factor model of personality and its relevance to personality disorders. J Pers Disord 1992; 6: 343-59.
4. Zoby MM. The association between personality and marital and relationship outcome. Ph.D. Dissertation. Virginia; USA: Regent University, Virginia Beach, 2005.
5. Decuyper M, De Bolle M, De Fruyt FB. Personality similarity, perceptual accuracy, and relationship satisfaction in dating and married couples. Pers Relat 2012; 19: 128-45.
6. Costa PT, McCrae RR. The NEO PI/FFI: Manual supplement. Odessa, FL: Psychological Assessment Resources; 1989.
7. Read SJ, Jones DK, Miller LC. Traits as goal-based categories: The importance of goals in the coherence of dispositional categories. J Pers Soc Psychol 1990; 58: 1061-84.
8. Karney BR, Bradbury TN. Neuroticism, marital interaction, and the trajectory of marital satisfaction. J Pers Soc Psychol 1997; 72: 1075-92.
9. Caughlin JP, Huston TL, Houts RM. How does personality matter in marriage? An examination of trait anxiety interpersonal negativity, and marital satisfaction. J Pers SocPsychol 2000; 78: 326-36.
10. Olson RR, Nemchek S. Five Factor personality similarity and marital adjustment. Soc Behav Pers 1999; 309-17.
11. Gattis KS, Berns S, Simpson LE, Christensen A. Birds of a feather or strange birds? Ties among personality dimensions, similarity and marital quality. J Fam Psychol 2004; 18: 564-74.
12. Rogge RD, Bradbury TN, Hahlweg K, Engl J, Thurmaier F. Predicting marital distress and dissolution: Refining the two-factor hypothesis. J Fam Psychol 2006; 20(1): 156-9.
13. McCrea RR, Costa PT. A contemplated revision of NEO five factor inventory. J Pers Individ Dif 2004; 36: 587-96.
14. Barelds DPH. Self and partner personality in intimate relationships. Eur J Pers 2005; 19: 501-18.
15. Karney BR, Bradbury TN. The longitudinal course of marital quality and stability: A review of theory, method and research. Psychol Bull 1995; 118: 3-34.
16. Shiota MN, Levenson RW. Birds of feather don't always fly farthest: similarity in big five personality predicts more negative marital satisfaction trajectories in long- term marriages. J Psychol Aging 2007; 22: 666-75.
17. Botwin MD, Buss DM, Shackelford TK. Personality and mate preference: Five factors in mate selection and marital satisfaction. J Pers 1997; 65: 107-36.
18. Hayes N, Joseph S. Big 5 correlates of three measures of subjective well-being. Pers Individ Dif 2003; 34: 723-7.

19. Heller D, Watson D, Iles R. The role of person versus situation in life satisfaction: A critical examination. Psychol Bull 2004; 130: 574-600.

20. Watson D, Hubbard B, Wiese D. General traits of personality and affectivity as predictors of satisfaction in intimate relationships: Evidence from self- and partner- ratings. J Pers 2000; 68: 413-49.

21. Danesh A. [The effect of similarity/confliction in personality traits of introverts/extroverts on marital satisfaction]. Journal of Daneshvar Raftar 2006; 10: 57-67. (Persian)

22. Aluja A, Barrio VD, Garcia LF. Personality, social values, and marital satisfaction as predictors of partners' rearing styles. Int J Clin Health Psychol 2007; 7: 725-37.

23. Gattis KS, Berns S, Simpson LE, Christensen A. Birds of a feather or strange birds? Ties among personality dimensions, similarity, and marital quality. J Fam Psychol 2004; 18: 564-74.

24. Fazel A, Haghsheh H, Keshavarz, Z. [Predictive power of personality traits and life satisfaction of women nurses in Shiraz paired]. Journal of sociology of women 2011; 3: 139-61. (Persian)

25. Attari YA, Amanollahifard A, Mehrabizadeh Honarmand M. [Relationship between personality characteristics and individual factors: A family with marital satisfaction in the state personnel office in Ahvaz]. Journal of scientific educational psychology 2006; 3: 81-108. (Persian)

26. Rasti A. [Comparing the personality characteristics and marital satisfaction based on Five-factor Model]. MS. Dissertation. University of Shiraz, 2004. (Persian)

27. Abdullahzadeh H. [The relationship between personality traits and marital satisfaction in couples in Damghan]. MS. Dissertation. University of Tabriz, 2003 (Persian)

28. Gholizadeh Z, Barzegari L, Gharibi H, Babapur Kheirodin J. [Investigate the relationship between the NEO Five Factor Inventory (NEO-FFI) and marital satisfaction]. Journal of clinical psychology and personality 2008; 43: 57-66. (Persian)

29. Asgari P, Hafezi F, Jamshidi S. [The relationship between attribution style and personality traits with marital satisfaction among nurses in Ilam]. Journal of women and culture 2010; 3: 17-33. (Persian)

30. Mohammadzadeh Ibrahimi A, Farhad J, BorjAli A. [The relationship between similarity and complementarities in personality factors with marital satisfaction]. Journal of research on psychological health 2008; 1: 61-9. (Persian)

31. Hosseininasab D, Badri R, Ghaemian Oskoee E. [The relationship between personality characteristics and interpersonal conflict resolution styles with marital adjustment of married students of Islamic Azad University of Tabriz]. Journal of educational administration 2008; 2: 57-78. (Persian)

32. Razavieh A, Bohlouliasl F, Moeen L. [The role of personality traits and marital satisfaction on job satisfaction married employees of Bonyad Shahid and Omur-e-Isargaran of Shiraz]. Quarterly journal of women and society 2010; 4: 1-18. (Persian)

33. Jodeiri J, Rasoulzade Tabatabaei K. [Examine the relationship between marital satisfaction (based on religious criteria) with emotional stability]. Journal of psychology and religion 2010; 3: 19-38. (Persian)

34. Shakerian A, Fatemi A, Farhadian M. [The relationship between personality traits and marital satisfaction]. Scientific journal of Kurdistan University of Medical Sciences 2010; 16: 92-9. (Persian)

35. Janatijahromi M, Moein L, Yazdani L. [Relation between personality characteristics and marital satisfaction among employed women in Kazeroon city]. Quarterly journal of women and society 2010; 2: 143-6. (Persian)

36. Ahadi B. [The relationship between personality and marital satisfaction]. Contemporary psychology 2008; 2: 31-36. (Persian)

37. Razeghi N, Nikiju M, Kraskian Mujembari A, Zohrabi Masihi A. [Relationship between Big Five Personality Factors and marital satisfaction]. Journal of developmental psychology: Iranian psychologists 2009; 27: 269-77. (Persian)

38. Rosenthal R, DiMatteo MR. Meta-analysis: Recent developments in quantitative methods for literature reviews. Ann Rev Psychol 2001; 52: 59-82.

39. Howitt D, Cramer D. Statistical methods in psychology and other behavioral sciences. 7th ed. USA: Belmont CA; 2007: 240-56.

40. Hunter JE, Schmidt FL. Methods of meta-Analysis: Correcting error and bias in research findings. Newbury Park, CA: Sage; 1990: 592.

41. Glass GV. Primary, secondary, and meta-analysis of research. Educ Res 1976; 5: 3-8.

42. Abedi A, Oraizi H, Mohammadzadeh H. [Introduction to meta-analysis of research methods in educational research]. 2006. (Persian)

43. Watson D, Casillas A. Neuroticism: Adaptive and maladaptive features. In: Chang EC, Sanna LG. (editors). Virtue, vice, and personality: The complexity of behavior. Washington. DC: American Psychological Association; 2003: 145-61.