



The Effect of Sternberg's Tridimensional Intelligence on Marital Compatibility

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The present study was conducted with the aim of the impact of Sternberg's three-dimensional intelligence on the level of marital compatibility. The descriptive research method was correlation type. The statistical population of the research was all couples in Tehran in 2022. According to Morgan's table, the research sample was 384 married men and women. The sampling method was chosen voluntarily. Research tools were Graham B. Spanier's Marital Compatibility Questionnaire and Grigorenko and Sternberg's Successful Intelligence Questionnaire. The data analysis method was also determined by regression analysis. The findings of the research showed that three analytical intelligences, creative intelligences, and practical intelligences from Sternberg's point of view can have an impact on the compatibility of couples. Meanwhile, the influence of creative intelligence is greater than other intelligences. It can be concluded that intelligence as an important factor can play an important role in the marital compatibility of couples.

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Introduction

Marriage is not only a determining factor for the happiness of couples, but it also plays a significant role in the quality of child-rearing in society. This translates to greater success for children, turning them into healthy citizens and providing effective assistance to the economy (Yu & Liu, 2021). Additionally, according to a study, single individuals are twice as likely to be at risk of premature death compared to married individuals, and there is ample evidence that marriage has health benefits. Married individuals have better physical and mental health compared to their single counterparts (Law & Sbarra, 2019). Focusing on gender differences in the effects of marriage on individual health, some studies have shown that marriage may be significantly more beneficial for men's health than women's health (Lindstrom, 2019).

One of the most important factors that affects the survival and growth of a family is healthy relationships and understanding among its members, especially between spouses (Manjula et al., 2021). Love, trust, and responsibility are key factors in stable marital relationships, creating stability and coherence in society (Lavner et al., 2017). In summary, marriage is the foundation of society and, in recent times, with the rapid change of social values, the institution of marriage is undergoing significant changes (Lavner et al., 2018). Over the years, the quality of marital relationships has been examined in terms of "satisfaction," "adaptation," "conformity," and/or "happiness," and sometimes these terms have been used as complementary elements of marital quality (Li & Jiang, 2021).

Marital adjustment is a key factor in good family functioning, facilitating parental roles and promoting economic growth and greater life satisfaction. On the other hand, the presence of marital maladjustment, in addition to creating problems in the above areas, leads to problems in social relationships, a tendency towards social and ethical deviations, and a decline in cultural values among couples (Chung & Kim, 2015). Adjustment also refers to a tendency to respond constructively rather than destructively to a potentially harmful action, usually used for social and psychological adjustment, which means a type of adaptive behavior that allows an individual to cope with environmental demands (Bharambe & Baviskar, 2013).

Marital adjustment is indicative of a dominant feeling that couples perceive in their marital relationship, which is happiness and satisfaction with each other (Wischnann & Baucom, 2012). Marital adjustment also includes the process of adapting to external changes, maintaining a balance between the expectations and needs of the other

party, and adapting to changes in marriage and family life (Fasilogo, 2018). Therefore, it can be said that marital adjustment is a period of perfection and development in which the growth and progress of couples are accepted and understood, and in the absence of understanding and experience of this growth, the end of marital relationships will be an inevitable consequence (Baron & Smit, 2016).

Marital adjustment may not be based solely on elements that are simply opposed to elements that lead to maladjustment (Ward et al., 2019). In fact, it has been claimed that in places where the agreement of couples on major issues is important for marital adjustment, minor differences and even insignificant anger exchanges may expand their perspectives in a dyadic relationship and increase adjustment if properly processed (Chi et al., 2011).

On the other hand, studies have shown that negative interactions such as marital adjustment difficulties weaken positive relationship factors (such as trust and commitment) in marriage (Heyman, 2014). It is obvious that including elements of satisfaction and marital adjustment does not automatically mean the absence or presence of negative interactions in marriage, but rather should be studied separately (Fladeboe et al., 2018). In recent years, helping couples improve their marital relationships using various therapeutic methods has received attention. The prerequisite for helping couples solve marital problems is to recognize the effective factors and causes of dissatisfaction and marital adjustment. Marital adjustment and lack of marital adjustment are influenced by various factors, including thinking patterns, individual perception of oneself and others, personal characteristics, and emotions (Soleymanian & Mohammadi, 2009). One of the factors that can affect marital adjustment of couples is intelligence. The concept of intelligence has been defined or conceptualized in various ways, some of which are compatible with each other, while others are mutually contradictory (Sternberg, 2019). There is certainly a real phenomenon that needs to be explained, but people's perceptions of that phenomenon are completely different, just like understanding a scene in a movie. Some consider intelligence to be a biological feature, while others consider it a cultural invention whose biology depends entirely on the choice of a particular culture to define intelligence (Haier, 2016). Some consider intelligence essentially a unitary phenomenon, while others see it as a multiple phenomenon, and one of the most important theories of intelligence is Sternberg's three-dimensional theory of intelligence. According to Sternberg, intelligence has three facets: analytical

intelligence, experiential intelligence, and practical intelligence. In the first part of the theory, the mental mechanisms responsible for planning, executing, and evaluating intelligent behaviors are examined. The second part examines the relationship between intelligence and experience. In this part of the theory, two important processes are examined: (1) how to deal with new tasks or situations, and (2) how to automate information processing. The third part examines the relationship between intelligence and the environment. This part of the theory explains three processes: adaptation, change, and selection of the environment. According to Sternberg, these abilities are flexible and can be improved through educational and enrichment programs (Sternberg, 2020). In analytical intelligence, according to Sternberg, intelligent behavior can be divided into a set of information processing activities. These cognitive activities are called mental constructs. Experiential intelligence is related to creative thinking. Such a person can break down the elements of an experience and combine them insightfully (Sternberg & Grigorenko, 2003). In Sternberg's theory, intelligent behavior sometimes reflects a person's ability to effectively deal with a new situation or task, which in this case is called insight, or reflects a person's ability to quickly and effectively deal with familiar situations or tasks, which in this case is called automation. In both cases, the person's previous experiences play an important role. Practical intelligence enables individuals to interact with others, including different people, and meet environmental expectations. Practical intelligence is the ability to adjust to everyday life by using existing knowledge and skills. Practical intelligence enables a person to understand what needs to be done in a particular environment and then do it (Sternberg, 2015). According to this theory, creative individuals are those who are inclined to buy low and sell high in the realm of ideas. Buying low means that they are looking for unknown or unsupported ideas. When these ideas are first presented, they face resistance. The creative individual continues to pursue the idea despite this resistance, eventually selling it at a high cost while moving on to a new or unconventional idea. According to this theory, creativity requires the intersection of six distinct yet related sources, including mental abilities, knowledge, thinking style, personality, motivation, and environment (Sternberg, 2012).

In this regard, the impact of Sternberg's three-dimensional intelligence on marital adjustment creates an interesting study. For example, the results of Demiri et al.'s (2014) study showed that personal and intellectual styles play a significant role in predicting marital

satisfaction for both men and women when used alone or in combination. However, to date, no empirical research has been conducted to find a relationship between three-dimensional intelligence and marital adjustment. Examining this question has important implications for mate selection. It is also important for psychologists because it can not only help them predict marital stability but also help couples deal with the conflicts in their married life. In addition to psychologists, this issue is also of interest to behavioral geneticists who are interested in studying combinatorial mating in humans.

Methodology

This is a correlational research study. The statistical population of the study consisted of all married couples in Tehran in 2022. The research sample, according to the Morgan table, was 384 married men and women who voluntarily participated in the study after receiving a call via SMS. The entry condition for the study was that they be married, at least 3 years have passed since their marriage, not addicted to drugs or alcohol, not taking specific psychiatric medication, not a psychologist or counselor, and have not received psychological counseling regarding marriage and family until filling out the questionnaire. Ethical considerations were observed with special sensitivity in the study, and since the questionnaires were about private marital relationships, which is a cultural taboo in Iran, participants were fully assured that the questionnaire information would be kept confidential (while the questionnaires were anonymous); also, participants were free to withdraw from filling out the questionnaires at any stage. The following questionnaires were used to collect research data:

Spanier Marital Adjustment Questionnaire: The Marital Adjustment Questionnaire, designed by Spanier in 1976, measures the adjustment between husbands and wives or any two people living together. This questionnaire has 32 questions. Factor analysis shows that this scale measures 4 dimensions, including 1- dyadic satisfaction (level of satisfaction with various aspects of the relationship) with 10 questions, 2- dyadic cohesion (level of participation in joint activities) with 5 items, 3- dyadic consensus (level of agreement between the parties on issues related to marital relationships such as financial matters and child rearing) with 13 items, and 4- affectional expression with 4 items. The total score is the sum of all the scores and ranges from 0 to 151. Different questions are scored in different ways, some in a 5-point Likert scale, some in a 4-point Likert scale, and some as yes or no. Higher scores indicate higher satisfaction in marriage. The validity of this questionnaire was reported to be 0.73 by Darvizeh and Kahaki (2008) through correlation with a parallel

form (California Personality Questionnaire). The Cronbach's alpha coefficient in the present study ranged from 0.65 to 0.82. A lower score indicates higher adjustment and a higher score indicates lower adjustment. The reliability coefficient of this test was reported by authors (Sinha and Singh, 1993; cited by Namdaran Gerami et al., 2017) to be 0.95 for adjustment through split-half method and 0.93 through retest method.

Successful Intelligence Questionnaire: Gregornikou and Strenberg designed the Successful Intelligence Questionnaire in 2002. This questionnaire consists of 3

dimensions of analytical intelligence, creative intelligence, and practical intelligence. The questionnaire has 36 questions. The responses are graded on a 5-point Likert scale (from strongly disagree=1 to strongly agree=5). Of the 36 questionnaire items, 12 items measure analytical intelligence, 12 items measure creative intelligence, and 12 items measure practical intelligence. In the study by Arab Shibani and Akhondi (2017), the Cronbach's alpha coefficient of the questionnaire was calculated to be 0.79, 0.85, 0.78, and the total score was 0.84.

Findings

Table 1: Mean and standard deviation and determination of normality or abnormality of research variables

Component	Mean	SD	K-S	Sig.
Dyadic satisfaction	03.24	15.4	475.0	200.0
Dyadic cohesion	22.25	54.3	359.0	200.0
Dyadic consensus	48.21	10.3	336.0	200.0
Affectional expression	33.24	47.3	342.0	200.0
Marital adjustment total score	33.95	17.8	315.0	200.0
Analytical intelligence	15.35	03.3	302.	200.0
Creative intelligence	26.37	16.3	426.0	200.0
Practical intelligence	10.30	21.3	361.0	200.0
Intelligence total score	51.102	45.9	464.0	200.0

The table above shows the mean, standard deviation, and normality tests for the research variables. It can be said that the total score of adjustment is 33.95 with a standard deviation of 17.8, and the total score of intelligence is 51.102 with a standard deviation of 45.9. The status of

the scores also indicates that the distribution of scores is normal and parametric statistics can be used.

Table 2. Regression summary

R	R ²	R ² _{adj}	Estimate standard error
0.444	0.197	0.177	7.818

Linear regression was used to determine the effect of independent and background variables on marital adjustment. From the results of the table, it can be concluded that the multiple correlation coefficient (R) is calculated as 0.44, indicating that analytical intelligence, creative intelligence, practical intelligence, and total intelligence score are simultaneously correlated with marital adjustment by 0.44. The coefficient of

determination (R²) is calculated as 0.19, which means that about 19% of the changes in marital adjustment are explained by analytical intelligence, creative intelligence, practical intelligence, and total intelligence score, and the remaining 81% is due to other factors that were not considered in the present study.

Table 3. Multivariate analysis

	SS	DF	MS	F	Sig.
Regression	10127.499	4	5063.750	17.415	0.001
Residual	71821.077	379	290.774		
Total	81948.576	383			

The observed F-value in Table 3 indicates a significant test of the coefficient of determination, which is equal to 17.41, and is statistically significant at the (0.001) level.

Table 4. Regression coefficients

Variables	B	Standard error	Beta	t	sig
Constant	108.575	12.356		8.787	0.001
Analytical intelligence	0.239	0.066	0.220	3.602	0.001
Creative intelligence	0.691	0.185	0.228	6.732	0.001
Practical intelligence	0.266	0.062	0.163	4.289	0.001
Total	0.316	0.227	0.144	3.536	0.001

To determine the effect of multiple variables on analytical intelligence, creative intelligence, practical intelligence, and total intelligence score, we used multiple linear regression analysis. According to the results of the table above, it can be said that by increasing one unit of the independent variable, the dependent variable will increase by the amount of the beta coefficient written. As can be seen from the results of the table, the effect of all variables on marital adjustment is significant at a level of less than 0.05. Therefore, it can be said that creative intelligence has the greatest effect on marital adjustment with a beta coefficient of 0.691. In other words, by increasing one unit of creative intelligence, there will be an increase of 0.691 standard deviations in marital adjustment.

Conclusion

The findings of this research indicate that the three types of intelligence proposed by Strenberg, namely analytical intelligence, creative intelligence, and practical intelligence, can have an impact on the adjustment of couples. Among these, the impact of creative intelligence is greater than that of the other types of intelligence. This finding is consistent with the results of the Ang and Van Dyne (2015) and Strenberg (2004) studies. It can be argued that, due to the empirical correlation between intelligence on the one hand and social status on the other, intelligence indirectly affects marital outcomes and their quality. Conversely, according to the previous mechanism, the correlation between intelligence and marital outlook may be direct, as intelligence may be attractive to couples in and of itself. Furthermore, in this context, different types of intelligence may potentially have different effects. For example, during the beginning of a romantic relationship, during the period of getting to know each other and interacting with each other and other social interactions, more easily understandable types of intelligence such as creative intelligence and communication skills may be particularly attractive to couples. On the other hand, when it comes to continuing

the relationship and staying married, observing numerical and logical intelligence becomes more difficult and may only be observed over a longer period of time. On the one hand, Ang and Van Dyne (2015) introduce successful intelligence as a framework for understanding cultural adjustment. For example, when an individual enters a country with a different culture, they must understand and adapt to the different cultural norms for various behaviors, including socializing, eating, and even crossing the street, and this requires mental flexibility (Strenberg, 2004). An intelligent person can easily understand that the necessary skills for adaptive performance in different cultures are different, and they must learn these skills and apply them practically in their daily life. Someone who does not understand this, regardless of how high their intelligence is, will face failure in adjusting to new cultures and situations (Ang and Van Dyne, 2015). This concept can also be extended to the interactions of shared life. When two people with different cultural and family backgrounds come together, they will face many new situations that require successful intelligence to adapt. Another aspect of successful intelligence emphasized in its theoretical definitions is that individuals with successful intelligence can identify their strengths and weaknesses and use them properly, while also finding ways to correct and compensate for their weaknesses (Strenberg, 2004). It is clear that such abilities can also be useful in facing shared life issues, and perhaps for this reason, successful intelligence has been able to predict marital adjustment in this study. Individuals with successful intelligence can adapt to different environments around them using analytical, creative, and practical abilities (Strenberg, 2004), while also being able to analyze different options, identify the problem, and find solutions (Strenberg, 2004). According to this concept, an intelligent person is someone who knows how to use their intelligence in different situations (Strenberg, 2009), and this can not only lead to success in learning (Strenberg, 2019), academic progress (Lira, Castell, Marufo, Melgar,

2019), and job competence (Strenberg, 2002), but according to Strenberg (2002), it can also play a role in social life, as demonstrated by the findings of this study, which showed its role in success and marital adjustment. In fact, couples can use the dimensions of intelligence and their knowledge of their strengths and weaknesses to achieve marital adjustment, and by balancing their analytical, creative, and practical abilities, they can make the right choices and adapt to the new conditions that arise with marriage and the environment they create as a couple. They can also use their intelligence to improve the quality of their married life by being aware of their performance in new situations. By using critical thinking skills and reasoning in dealing with new issues, they can have better performance. Learning successful intelligence leads to critical thinking, which improves the ability to analyze, compare, and evaluate situations, and leads to the right choices and a high-quality and lasting life .

Like any other research, this study has faced limitations, including a small sample size and the available sampling method, which limits the generalizability of the results. Also, due to the novelty of the concept of successful intelligence, its attractiveness may have affected the research results. In addition, the cross-sectional nature of the study and the use of self-report questionnaires to measure structures are other limitations of this research. Perhaps in a longitudinal design and using other measurement methods such as interviews and behavioral observation, the correlation and causality relationships between these variables can be better examined. It is suggested that research be conducted on larger and more diverse samples using other sampling methods. Also, based on the research findings, it is recommended that in training programs, emphasis be placed on the beliefs of successful intelligence components that increase marital adjustment.

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