

## THE RELATIONSHIP BETWEEN QUALITY OF MARITAL RELATIONSHIP AND MARITAL STRESS IN PATIENTS WITH ISCHEMIC HEART DISEASE

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### ARTICLE INFO

**Received:**

03<sup>th</sup> Jun 2017

**Accepted:**

29<sup>th</sup> Nov 2017

**Available online:**

14<sup>th</sup> Dec 2017

**Keywords:** Marital relationship, psychologig stress, Ischemic heart disease, Iran

### ABSTRACT

**Introduction:** Marital relationship is a multi-dimensional relationship, which affected by many factors such as psychological, individual and social, Satisfaction of Sexual relationship can cause strength of the family and both physical and mental health. Therefore, this study was performed to investigate the relationship between marital quality and marital stress in patients with ischemic heart disease.

**Methods:** This cross sectional study was performed on 300 patients with acute coronary syndrome, 2 months after hospitalized in the coronary angiography ward in shahid beheshti hospital in Qom, Iran in 2016. Patients were selected by convenience sampling. Data collection was done through using the "demographic and clinical data questionnaire", Marital quality" and "Stockholm marital stress questionnaire". Data were analyzed using SPSS 13 and central indexes, Pearson correlation test and multiple linear regression.

**Results:** The means of age in patients was 65.95±5.06. The means of Marital Quality 54.36±9.4 and Marital stress was 3.56±0.05 and 101.6±15.1, respectively. The Pearson correlation coefficient showed that Marital Quality score was significantly negatively correlated with Marital stress scores ( $r = -0.718$ ). The results of linear regression analysis revealed that there was significant relationship between quality of marital relationship and marital stress after removing the effects of intervening variables ( $p = 0.001$ ,  $R^2 = 59\%$ )

**Conclusion**

The results show that patients with acute coronary syndrome have favorable marital quality and marital stress. Relieve marital stress, improve the quality of the marital relationship. Therefore; It is recommended that nurses must pay attention to education concerning the Marital Stress Management in patients with Ischemic heart disease.

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**To Cite This Article:** Mohamad Heidari, Leila Ghanbari Afra, Monireh Ghanbari Afra, Mahsa Haji Mohammad Hoseini, (2017), "the relationship between quality of marital relationship and marital stress in patients with ischemic heart disease", *Pharmacophore*, 8(6S), e-1173455.

### Introduction

Today, Ischemic heart disease (IHD) is one of the most popular known diseases, in all over the world (1). It is among the factors that can negatively affect marital relationships. It is a debilitating condition which causes different physical and psychosocial problems. Ineffective coping with IHD as well its associated problems may impair patients' can cause physical and mental disabilities in people(2). Moreover, psychological problems such as depression, anxiety, stress, and fear about developing new myocardial infarction (MI) or suffering death can also cause dysfunction in people life(3-5).

Research findings about the relationship of quality of marital relationship with marital stress are conflicting. Most of these patients think that their situations are critical(6). Fear and confusion about the consequences of the disease can express anger about health condition, satisfaction reduction, couples' intimacy reduction, avoidance from social activities, and consequently reduction marital relationship quality(7-12). On the other hand, fear about developing new myocardial infarction (MI) or suffering death and feeling of inability in supplying needs of the partner can also cause promote their attention, intimacy,

mutual understanding, the desire for couples to be with each other, and improve their the quality of the marital relationship(13-16). The quality of marital relationship is a multidimensional concept including various dimensions of couples' relationships such as adaptation, sexual satisfaction, happiness, coherence, and commitment(11). Studies have shown that reduction of marital relationship can cause increase of the divorce. It influences on general quality of life and mental well-being(17). Anxiety and stress are the most popular consequences of IHD that can worsen its prognosis(18). During past decade, Stress has received incremental attention in marital studies. A research showed that stress in couples is a double phenomenon influencing on both parties(19). Marital stress is one of the initial resources of stress for many adults that can cause negative Feeling, sleep disorders, and changes in physiological responses(20). Marital stress has negative effect on health through various ways. These stresses increase daily cortisol levels that finally make disorders such as metabolic syndrome, coronary artery atherosclerosis, and increased mortality from cancer(21). It was reported that marital stress, as a chronic interpersonal stress, also cause reduces immune system function and changes the related behaviors to health. In addition, it in the women with IHD worsens disease prognosis, and makes that the recurrent heart attack risk, within next 5 years will be 3 times higher(22).

As mentioned earlier, significant disagreement exists over the marital stress and quality of marital relationship. Our field observations also confirmed differences in patients' marital stress and quality of marital relationship following IHD. Accordingly, this study was conducted to provide further evidence on the marital stress and quality of marital relationship.

#### **Methodology:**

The study was conducted in 2016 by using a cross-sectional correlational design. Study population was all the patients with IHD who had been hospitalized in the angiography unit of Shahid Beheshti hospital, Qom, Iran. Sample size was calculated with Cochran formula and by using the results of a local study ( $P=92.6$ ,  $d=0.03$ ,  $Z=1.96$ ). It was 294 patients but for more confident A convenience sample of 300 patients with IHD was drawn(23).

The inclusion criteria were being married, giving informed consent for participation, having Iranian nationality, not having any known mental problems, being able to answer researchers' questions and speak Persian, having no previous history of hospitalization due to cardiac problems, and being discharged maximally three days after hospitalization. Patients who wanted to withdraw from the study, were re-hospitalized, or faced death after discharge and before completing the study questionnaire were excluded.

Study data were collected by using a demographic questionnaire (on participants' age, gender, education, employment, use of cardiac medications, history of other underlying diseases, ejection fraction and selective treatment), the Revised Dyadic Adjustment Scale (RDAS) and Stockholm Marital Stress Scale (SMSS).

The RDAS is a 14-item and 3sub-scale standardized questionnaire for evaluating quality of marital relation. 3 sub-scale is agreement (item 1 to 6), satisfaction (item 7 to 10), and coherence (item 11 to 14). Items are scored on a six-point Likert scale on which 0 is equal to 'totally disagree' and 5 is equal to 'totally agree'. Six items are scored reversely (1 to 5 and 11). The total score of the RDAS ranges from 0 to 69. Scores higher than 47 shows higher marital quality. The reliability and the validity of the Persian RDAS were evaluated by Montazeri et al. They reported a Cronbach's alpha of 0.90 for the questionnaire(24). In addition, Cronbach's alpha coefficient in this research was obtained 0.91.

The SMSS is a 17-item standardized questionnaire for evaluating marital stress. It was made by Orth Gomer et al. (2000) to study about heart disease patient(25). Items are scored from 0 to 1 which 1 is equal to 'NO' and 0 is equal to 'YES' in 14, 13, 8, 7, 5, 2, 1, and 15 items. Other items are scored reversely. The total score of the SMSS ranges from 0 to 17. Higher Scores shows higher marital stress. The reliability and the validity of the Persian SMSS were evaluated by Besharet et al. They reported a Cronbach's alpha of 0.91 for the questionnaire(26). In addition, Cronbach's alpha coefficient in this research was obtained 0.89.

After receiving the necessary permissions and approvals, we referred to the study setting and identified eligible subjects. The aim and the methods of the study were explained to them and informed consent was obtained. Then, study subjects were invited to complete the demographic questionnaire. Two months afterward, subjects were invited to the study setting for completing the RDAS and SMSS. For subjects who were unable to read or write, questionnaires were filled by using the interview technique. Patients names were coded for being kept secret, and patients could leave this study if they don't like to continue cooperation.

This study was conducted based on the Declaration of Helsinki. We informed patients about the aim and the flow of the study and asked them to provide informed consent. Due to the great sensitivity of marital issues and for preventing potential measurement biases, the questionnaires were administered and filled by same-gender questioners.

We analyzed the data by using the SPSS v. 13.0. regarding demographic variables—such as gender, education, history of underlying disease, use of cardiac medications, ejection fraction, , and selective treatment —was assessed by the Central indexes. The Pearson correlation was also employed for studding the relationship between the quality of marital relationship and its dimensions with marital stress. We also performed linear regression analysis for removing the confounding effects of intervening factors. P values which were less than 0.05 were considered as significant.

#### **Findings:**

In total, 420 subjects had been hospitalized in the study setting from whom 120 did not meet the inclusion criteria. Consequently, 300 subjects entered and completed the study.

63.6% of them were male. The average age of participants was  $65.95\pm 5.06$ . 30% had diploma and higher degrees, and 30.9% of them were employed. 22.7% and 34.5% of them didn't have underlying diseases and drug consumption, respectively. The mean score of the quality of marital relationship was  $54.36\pm 9.4$  (its sub-scale: agreement  $26.7\pm 4.6$ ; satisfaction  $19.4\pm 3.7$ ; and coherence  $8.25\pm 2.9$ ) and mean score of the marital stress was  $3.56\pm 0.05$ . According to Pearson correlation test, the score of marital relationship quality with marital stress score had a significant negative correlation ( $r=0.718$ ) (Table (1)). We conducted linear regression analysis to remove the confounding effects of the variables of gender, age, education, employment, history of chronic disease, use of cardiac medications, ejection fraction, and selective treatment. The results of linear regression analysis revealed that there was significant relationship between quality of marital relationship and marital stress after removing the effects of intervening variables ( $p=0.001$ ,  $R^2=59\%$ ).

**Discussion:**

Study finding showed that marital relationship quality with marital stress score had a significant negative correlation in IHD patients. Adapted research with this research hasn't been. In a relatively close research by Shamsipour (2005), it was indicated that there is a significant relationship between depression and marital stress in the women with IHD. It seems that cause of high marital stress is their needs to love and appreciation aren't satisfied by their spouses. Therefore, their self-esteem is damaged and they are prone to depression. Thus, their quality of marital relationship is influenced by this mental aspect(27). Asari (2014) reported that sexual function and quality of marital relationship and marital satisfaction have a weak relationship. This relationship is influenced by marital stress(28). Rosen (2015) indicated People with less marital satisfaction have more depression(29). Sarhadi also reported the same finding(11). These finding can be attributed to patient with chronic disease influences on many life dimensions such as nutrition, physical activity, sexual activity, community attendance, behavioral habits, and individual lifestyle. Also, in most cases they are accompanied with underlying diseases\_\_ such as high blood pressure, high lipedema, and diabetes\_\_. Underlying diseases are big factors for stress and they can influence on the quality of marital relationship.

In this research, marital stress and quality of marital relationship score were  $3.56 \pm 0.05$  and  $54.36 \pm 9.4$ , respectively. This is while, approximately, 70% of participants had underlying diseases or drug consumption. Maybe it can be say that the reason for low score of marital stress and high quality of marital relationship is Iranian reach culture, importance, and strength of Iranian families, understanding, empathy, and intimacy among couples. It seems that people follow up the fear of losing their spouses and changes in lifestyle, pay attention together, promote intimacy and perception, reduce marital stress, and promote quality of marital relationship(6).

**Conclusion:**

Study findings indicated that two months after experiencing IHD, patients' level of quality of marital relationship was high and the marital stress was low. In addition, reduction in marital stress promotes the quality of marital relationship. Nurses who are providing care to patients with IHD need to pay closer attention to patient education about marital stress and quality of marital relationship.

**Limitations**

This study had two limitations. First, patients hold different religious and cultural beliefs and hence, may have different levels of stress. In addition, they have different physiologic conditions. These two limitations might have affected the study findings.

**Acknowledgement**

This study was approved and financially supported by Qom University of Medical Sciences, Qom, Iran. Authors are truly thankful to the study participants and the Research Council of Qom University of Medical Sciences.

Conflict of interest: No Conflict of interest

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**Table (1) - correlation between score of quality of marital relationship and its dimensions with marital stress score in the patients with IHD**

variables	quality of marital relation	agreement	satisfaction	coherence
marital stress	-7/18**	-0/607**	-0/628**	-0/563**

\*\* P=0.001

**Pearson correlation test**