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SEXUAL DESIRE AND MARITAL SATISFACTION AMONG CORONARY ANGIOPLASTY PATIENTS - PRE AND POST DESIGN

Muhammad Saleem,[1] Muhammad Adeeb,[2] Areeha Khan Durrani,[3] Ali Raza Siddique[4]

[1-4]Department of Applied Psychology, The Islamia University of Bahawalpur-Pakistan

Address for Correspondence:

Muhammad Saleem

Department of Applied Psychology, the Islamia University of Bahawalpur-Pakistan

Emails: chsaleem_1@hotmail.com

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Contribution

MS conceived the idea, designed the study and did statistical analysis. MA and AKD did data collection. ARS did review and final approval of manuscript. All authors contributed equally to the submitted manuscript.

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ABSTRACT

Objective: To access the differences in sexual desire and marital satisfaction among coronary angioplasty patients before and after their angioplasty.

Methodology: The quasi-experimental pre-test and post-test design was conducted at Punjab Institute of Cardiology Multan, from September 2017 to July 2018. The study population were male patients of CAD and they were asked to fill the sexual desire inventory-2 and ENRICH Marital Satisfaction Scale before the coronary angioplasty and again three months later when they came for the scheduled checkup after their coronary angioplasty. SPSS 24.0 was used for the analysis of collected data.

Results: This study comprised of total 47 male patients with mean age 42.35 $\pm$ 4.82. The result showed that sexual desire at pre-design was significantly positively correlated ($r = .41$, $p < .01$) with marital satisfaction. However, in post design, results also showed that sexual desire was significantly positively correlated ($r = .34$, $p < .04$) with marital satisfaction. Results also showed that means scores of sexual desire and marital satisfaction as 54.30 and 40.15 respectively in pre-design and in post-design mean scores of both study variables were 40.91 and 25.40 respectively.

Conclusion: Sexual desire and marital satisfaction are reduced in the CAD patients after the coronary angioplasty. There is need to carry out more researches to determine the factors and causes behind this dilemma.

Key Words: Coronary artery disease, Sexual Desire, Marital satisfaction, Pre-post design.

INTRODUCTION

Sexual desires and sexual activity are most important element for intimate and marital relationships but it is also believed that sexual functioning may be impaired by Coronary Artery Disease (CAD).[1-2] The medical treatment and interventions for curing the Coronary Artery Disease (CAD) comprise of medications, PTCA (percutaneous trans luminal coronary angioplasty) with stenting and CABG (coronary artery bypass grafting). It is observed that the patients with CAD have the double risk of sexual or erectile dysfunction in comparison with the healthy same age individual. The severity of CAD is correlated with the variation in sexual desires such as the erectile dysfunction in men and reduced sexual stimulation in the women.[3] There are studies which report a significant reduction in sexual desires and activity in patients of CAD after the PTCA or CABG treatment.[4-5] The reason might be that the coronary angioplasty results in changes of the muscles cells of the clitoral or penile tissues due to which the erection becomes difficult as the tissues fails to relax.[3,6] It is also observed that when CAD occurs, usually the patients and their spouses have dreadful feelings for sexual activity, as it might damage the cardiac health or may exacerbate the cardiac condition like excessive breathing or chest pain which may result in acute events or sudden death.[7,8] However, positive self-perception of sexual desires is directly linked to marital satisfaction.[9-11] But it is often reported by the CAD patients with the angioplasty surgery that changes in sexual desires and sexual activity causes decrease in their marital satisfaction.[12,13] Although study have reported that marital satisfaction could be beneficial for the long term recovery and survival of CAD patients.[14] In most of the researches, which examined the marital satisfaction after encountering a cardiac event, also focused on patient's sexual desires and sexual arousals. It has been concluded that reduced sexual arousals and urge for the sexual activity after the coronary artery surgery effects the marital satisfaction of patients.[15,16] Furthermore, it was also reported in a 15 years longitudinal study that a marriage with highest satisfaction was associated with a significantly higher survival among CAD patients than a low-satisfaction marriage.[17] Most of the studies reported above gives the empirical evidences on this certain issue for the Western populations or cultures other than Pakistan. According to our best knowledge, the dilemma of sexual desires and marital satisfaction in the CAD patients after coronary angioplasty has not been previously examined in Pakistan. The main objective of this study is to explore the relationship between sexual desire and marital satisfaction among coronary angioplasty patients in Pakistan and compare the difference in sexual desire and marital satisfaction among coronary angioplasty patients before and after their angioplasty.

METHODOLOGY

The study consisted of a quasi-experimental pre and post design. The sample comprised of male CAD patients who were treated with medical intervention and scheduled for the percutaneous coronary angioplasty and implantation of stents at the Punjab Institute of Cardiology, Multan. The study started from September 2017 to July 2018. To measure the sexual desires and marital satisfaction, instruments employed on the patients were Urdu translated version of Sexual Desire Inventory-2 (SDI-2) and ENRICH Marital Satisfaction (EMS).[18,19] The (SDI-2) is 14-item scale which assess the multidimensional aspects of sexual desires and sexual arousal in a multiple setting. Four items are scored on an 8-item response scale from 0 to 7 in which 0=not at all and 7=more than once a day, for the measurement of sexual desires. The remaining items are scored on a 9-point Likert scale ranging from 0 to 8 in which 0=no desire and 8=strong desire. Whereas the (EMS) is a 15-item scale designed to evaluate valid and reliable measure of marital quality. The 9 items are scored positively on 5 item response scale in which 1= strongly disagree and 5=strongly agree and 6 items are marked negative so they will be scored in reverse order i.e. like if it is scored as 5 then it will be scored as 1. The permission was taken from the authors of these instruments. The anonymity of participants and confidentiality of their data was assured. The Pre-test of SDI-2 Scale and EMS-Scale were administered to evaluate the sexual desires and marital satisfaction of the CAD patients in the hospital setting after obtaining their consent, 1 day before the angioplasty. Then, after 3 months of successful angioplasty, on the day of their already scheduled appointment with the hospital for checkup, again Post-test of SDI-2 Scale and EMS-Scale were administered on the patients to investigate the effect of surgery on their sexual desires and marital satisfaction. The scores of both pre and post tests were compared. Results were analyzed by using SPSS 24.0. To evaluate the relationship between the study variables, bivariate correlation was used and t-test was used for the comparison of scores before and after the angioplasty.

RESULT

The total number of 47 male patients (M=42.35, SD=4.82) participated in the current research. The findings in table 1 show that the sexual desire in the pre-test was significantly positively correlated to the marital satisfaction of the CAD patient with $p<0.1$. However, sexual desire and marital satisfaction was also significantly positively correlated with the marital satisfaction in post design with $p < 0.04$. The significant difference in the mean scores of sexual desires and marital satisfactions of patients in pre-test and post-test of angioplasty are shown in table 2. The mean score of sexual desire and marital satisfaction were 54.30 $\pm$ 22.80) and 40.15 $\pm$ 17.20) respectively in pre-test before

angioplasty whereas the mean scores of sexual desires and marital satisfaction were decreased to 40.91 ± 17.76) and 25.40 ± 7.29) respectively in the post test after angioplasty.

Sexual desire at pre-design was significantly positively correlated (r= .41, p < .01) with marital satisfaction (Tablet 1). While, in post deign, results also showed that sexual desire was significantly positively correlated (r= .34, p < .04) with marital satisfaction.

Significant difference found among coronary angioplasty patients before and after their angioplasty. While, the mean score of sexual desire and marital satisfaction were higher among coronary angioplasty patients before their angioplasty as compared to coronary angioplasty patients after their angioplasty (Table 2).

Table 1: Correlation among Sexual Desire and Marital Satisfaction(n=47)

	Pre-Design		Post Design	
Variables	Sexual Desire	Marital Satisfaction	Sexual Desire	Marital Satisfaction
Sexual Desire	-	.41**	-	.34*
Marital Satisfaction	-	-	-	-
Cronbach's alpha	.84	.75	.89	.81-

**p < .01; *p < .05

Table 2: Comparison among Coronary Angioplasty Patients before and after their Angioplasty through Paired Sample t-Test (n=47)

Variable	Before Angioplasty		After Angioplasty				
	M	SD	M	SD	MD	t	p
Sexual Desire	54.30	22.80	40.91	17.76	13.38	3.67	.00
Marital Satisfaction	40.15	17.20	25.40	7.29	14.75	5.78	.00

DISCUSSION

Sexual desires and sexual activity are considered to be the most important factor for the better quality of marital satisfaction and develop a huge concern for the CAD patients and their spouses.[20] Despite the growing body of literature concerned about the cardiac disease, there are only few empirical studies, which addresses this dilemma of sexual desires and marital satisfaction in the CAD patients. There is poor understanding of sexual and marital satisfaction among these patients but the fact cannot be denied that any cardiovascular event, or the diagnosis of cardiac disease, will frequently cause marked distress in the sexual and marital life of the patient.[2-4] This effect will get enlarged if the couple has any history of difficulties related to sexual and interpersonal life.[21] The current study followed a pre and post design in which the male patients were assessed before the schedule of their angioplasty and after three months of the angioplasty. In the table 1, the results for bivariate correlation presented that sexual desires and marital satisfaction were positively correlated in pre-test (p<0.01) and same findings were shown the in post-design (p<0.04). The decrease in the sexual desires will also result in reduced marital satisfaction. The findings of this study withstand with the previous evidences which demonstrated that the sexual activity is safe in CAD patients but the decline in sexual desires may also downgrade their marital satisfaction.[9-11] According to a study one-third of the patients with CAD and the cardiac angioplasty depicted remarkable sense of fear and concern for sexual intercourse whereas other showed lack of sexual desires.[7, 8, 22] The reasons for the restriction of the sexual desires is not clear but studies have shown that reduced sexual activities and sexual desires in patients of CAD have reported the marital dissonance and dissatisfaction.[23] The further findings of this study also claimed that there was significant difference in the means scores of sexual desires and marital satisfaction before and after the angioplasty. The results of t-test in table 2 for the comparison of Pre-test and Post-test demonstrated that the mean scores of sexual desires and marital satisfaction were higher in the pre-test and lower in the post-test. This clearly explained that there was decrease in the sexual desires and marital satisfaction of CAD patients after their angioplasty.[17,18] The findings of this study are prevalent with the previous researches which stated that due to coronary angioplasty there are greater chances of developing sexual concerns such as decrease in their libido, absence of sexual arousal, erectile dysfunction and cessation of sexual intercourse frequency in CAD patients.[4,5,12,13,24-26] There are evidences that suggest that medications and treatment interventions for the coronary artery patient has side effects on the sexual functioning.[27-29] Overall, it can be said that those patients who were much sexually active and healthy before the occurrence of CAD event were likely to develop decreased interest in the frequency of sexual arousal and desires after the angioplasty treatment.[21] Another study demonstrated that patients with the stenosis of CAD in angiography also tend to have vascular stenosis in the genital arteries and even the medical treatment for the CAD doesn't improve or cure the genital erection and circulation.[30] Despite the above discussed studies, there was a research which debated that the treatment of CAD such as PTCA can

cause a positive impact on the sexual and marital satisfaction of the patient.3 The present study was conducted on only male patients of CAD and they showed decline in sexual desires. These findings stand in line with the previous research which showed that the pervasiveness of erectile dysfunction in male cardiac patients was more than double times higher as in general population.[31] Overall, the results of present research showed that the coronary angioplasty decrease the sexual desires and marital satisfaction in the patients of CAD. The major findings of this study are aligned with the prior presented evidences. However, there were no previous researches from the Pakistani population so the findings of this research would contribute for the future veterans to explore various aspect of this area.

CONCLUSION

Conclusively, the sexual functioning and marital satisfaction of CAD patients in the Pakistan is neglected in the psychological research. Our research demonstrated that the sexual functioning and marital satisfaction is notably hindered in the patients of CAD after their angioplasty treatment and stenting. Most importantly, there is need to provide knowledge about the reason of decreased sexual desires to the patients and psychological treatments and interventions should be introduced for CAD patients to normalize their sexual functioning and marital satisfaction.

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