Title: Effectiveness of Cardiac Rehabilitation Program on the Modifiable risk factors of Cardiac Patients

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Introduction:

Cardiovascular disease (CVD) is a major non-communicable health issue in the world and the reported prevalence of CHD in Indians has risen 4-fold over the last 40 years. Cardiac rehabilitation programs aim at secondary and primary prevention of the disease and restoration of normalcy in patients' life through exercise, risk modification and counseling.

Aim:

To assess the effectiveness of Cardiac Rehabilitation Program on the Modifiable risk factors of cardiac patients.

Methods:

51 male cardiac patients (45-80years) enrolled for Cardiac Rehabilitation program at Asian Heart Institute (AHI) City Centre were selected using purposive sampling technique and were categorized into three groups (A,B,C) based on the number of sessions attended (A-12, B-36 and C-60 sessions respectively) .Anthropometric measurements (weight, body mass index-BMI, waist circumference, waist to hip ratio-WHR) and clinical markers (resting heart rate-RHR and resting blood pressure-RBP) were measured before and after completion of the program, and information on current dietary habits was collected using 24 hours dietary recall and food frequency questionnaire. The data was analyzed using SPSS 16.0 version.

Results:

A modest positive trend of reduction in all the anthropometric markers of obesity was observed among participants of all groups which is indicative of positive outcome of Cardiac Rehabilitation program. Benefit of prolonged exercise intervention was evident from the significant reduction ($p<0.01$) in WC and WHR in Group-3 participants with prolonged exposure to the program. A non-significant reduction in the mean WC and WHR was also observed among other groups which indicated the beginning of a positive trend in improvement in body composition. A significant reduction ($p <0.01$) in RHR was observed in the participants attending the program for longer period (36-60 sessions). Surprisingly, the participants attending the program for a shorter period showed better dietary practices and dietary nutrient intake than the others. But overall, all the participants consumed fibre, protein and antioxidant-rich foods along with lean meat and fish by non-vegetarians. Consumption of heart healthy foods like oats, nuts and flaxseed, and restriction of sodium-rich and fried foods showed improved nutritional awareness.

Conclusion:

It may be concluded that the Cardiac Rehabilitation program was beneficial in improving the body composition and clinical markers of CVD. Though the improvements were compliance- and duration-based, they stressed the long-term adoption of lifestyle modifications. The results must be considered as synergistic effect of medications and exercise.

References:

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