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Research Article

**A STUDY ON TREATING HEART PATIENTS BY
ENHANCING POSITIVE EMOTIONS THROUGH POSITIVE
PSYCHOLOGY INTERVENTION**Dr Muhammad Uman¹, Dr Umar Ayoub¹, Dr Salman Saddique¹¹Medical Officer at THQ Hospital, Fortabbas**Abstract:**

Introduction: Coronary artery disease (CAD) is the leading cause of death worldwide, making it a major public health problem. **Aims and objectives:** The basic aim of the study is to analyse the treatment of heart patients by enhancing positive emotions through positive psychology intervention. **Material and methods:** This descriptive study was conducted in THQ Hospital, Fortabbas during January 2019 to July 2019. This study was done with the permission of ethical committee of hospital. The data was collected from 100 patients who were suffering from heart diseases. The data was collected through a questionnaire. **Results:** The data was collected from 100 patients. There were no significant differences in baseline characteristics between those participants with available data and dropouts, though dropouts trended toward higher rates of CABG. Mean age was 56.6 +/- 8.7, 42 (76%) were men, and diabetes (n=14; 25%) was the most common medical comorbidity. There were no differences in characteristics (all p>.05) between PPI and control participants. **Conclusion:** It is concluded that positive psychology intervention enhances positive emotions like happiness, optimism, gratitude, etc. and decreases the risk for the incidence of coronary heart disease.

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INTRODUCTION:

Coronary artery disease (CAD) is the leading cause of death worldwide, making it a major public health problem. Positive psychological constructs, such as optimism and positive affect, are associated with reduced mortality in patients with and without pre-existing cardiac disease, along with fewer rehospitalizations in heart failure patients and increased survival following cardiac surgery [1]. Such effects on cardiac health appear to be independent of negative affective states, suggesting that it is not simply an absence of depression that confers the cardiovascular benefit associated with positive emotions [2].

An intervention that boosts positive psychological well-being has the potential to improve outcomes in patients with cardiovascular disease. Positive psychology interventions (PPIs) aim to cultivate positive psychological states (e.g., optimism, gratitude, positive affect) through systematic exercises, such as performing kind acts, writing a letter of gratitude, or using personal strengths [3]. These exercises are straightforward, require minimal provider training, and have been found to consistently and substantially increase well-being and reduce depression in healthy persons (10). However, despite the association of positive psychological states with superior cardiac outcomes, there has been little study of PPIs or related programs in cardiac patients [4], and none outside the United States.

Positive emotions are thought to decrease the incidence of coronary heart disease (CHD). As these emotions are considered to be protective factors against CHD after making adjustment for psychological distress and hostility [5]. Although a number of evidences are available which state that psychological aspects play an important role in treating as well as increasing cardiac problems. It has been also stated that positive emotions such as optimism are related to better cardiac health outcomes in cardiac and non-cardiac patients, after controlling for demographic variables, risk factors associated with heart disease and other health issues. Moreover, the relationship between positive traits and 1-5 outcomes of cardiac health are independent of

adverse psychological conditions means enhances cardiac health due to the absence of psychological disorder or distress and presence of positive characteristics [6].

Aims and objectives

The basic aim of the study is to analyse the treatment of heart patients by enhancing positive emotions through positive psychology intervention.

MATERIAL AND METHODS:

This descriptive study was conducted in THQ Hospital, Fortabbas during January 2019 to July 2019. This study was done with the permission of the ethical committee of the hospital. The data was collected from 100 patients who were suffering from heart diseases. The data was collected through a questionnaire. Thus before the administration of Positive Psychology Intervention, all the participants were asked to complete measures of Gratitude Questionnaire, life orientation test-revised, and coronary artery disease (CAD) symptoms checklist for the purpose of pre-testing and post testing. Coronary heart disease symptoms severity was assessed through CAD Symptoms Check List. It evaluates 10 symptoms of heart disease reported on a zero to two point scale. High scores on the checklist indicate a high level of symptom severity.

Statistical analysis

The data was collected and analysed using SPSS version 20.0. All the values were expressed in mean and standard deviation.

RESULTS:

The data was collected from 100 patients. There were no significant differences in baseline characteristics between those participants with available data and dropouts, though dropouts trended toward higher rates of CABG. Mean age was 56.6 \pm 8.7, 42 (76%) were men, and diabetes (n=14; 25%) was the most common medical comorbidity. There were no differences in characteristics (all $p > .05$) between PPI and control participants. Across the four study conditions, only history of prior depression differed across groups.

Table 01: Changes in study outcome variables in PPI and control participants

Condition	Coefficient	95% CI	p	Effect size (d)
Happiness (Oxford Happiness Inventory)				
Post-intervention (7 weeks)				
PPI (N=41)	5.04	2.42, 7.68	< .001	.97
Control (N=14)	0.03	-5.95, 6.02	.99	--
Follow-up (15 weeks)				
PPI	5.62	2.84, 8.40	<.001	1.08
Control	-8.54	-14.53, -2.54	.005	--
Depression (Beck Depression Inventory-II)				
Post-intervention (7 weeks)				
PPI	-0.27	-2.23, 1.69	.79	.07
Control	-0.77	-4.17, 2.63	.66	--
Follow-up (15 weeks)				
PPI	-2.54	-4.60, -0.47	.016	.65
Control	1.21	-2.19, 4.62	.49	--
Satisfaction (Satisfaction with Life Scale)				
Post-intervention (7 weeks)				
PPI	1.41	0.17, 2.64	.026	.50
Control	1.68	-0.69, 4.06	.17	--
Follow-up (15 weeks)				
PPI	1.32	0.01, 2.62	.048	.47
Control	0.08	-2.18, 2.34	.95	--
Hope (Dispositional Hope Scale)				
Post-intervention (7 weeks)				
PPI	0.007	-2.75, 2.76	.99	.01
Control	-4.44	-10.98, 2.02	.18	--
Follow-up (15 weeks)				
PPI	-1.89	-4.81, 1.03	.21	.25
Control	-8.71	-14.66, -2.76	.004	--

DISCUSSION:

The results of the current are consistent with the previous researches that happiness is increased through positive thoughts which are experienced through gratitude and optimism interventions. Positive psychology interventions are directed to target activities in numerous areas, such as altruism (for example doing kind acts), gratitude (for example remembrance of positive lifetime incidents), utilizing one's own strengths intentionally, and optimism (or example visualisation of positive impending consequences [7] However, the most common positive attribute which has been associated with coronary heart disease is optimism. Optimism as a trait produces positive and confident expectation about one's own future. These findings are confirmed Giltay, and his colleagues in Zutphen Elderly Study that optimism is linked with reduced risk for coronary heart disease. Boehm, and Kubzansky stated that optimistic people experience 50% reduced risk of initial coronary heart event as compared to those are less optimistic [8].

Overall, the lack of differences among PPIs is not surprising, given that there was moderate overlap in constructs targeted by each intervention, such as optimism, gratitude, forgiveness, flow, and mindfulness [9]. Further study exploring potential superiority of one PPI over another could identify an optimal PPI to target specific outcomes (e.g., depression, optimism) that are associated with major medical outcomes, including survival, in cardiac patients [10,11].

CONCLUSION:

It is concluded that positive psychology intervention enhances positive emotions like happiness, optimism, gratitude, etc. and decreases the risk for the incidence of coronary heart disease. However, positive emotions are protective factors for CHD patients and also undo the effect of negative emotions.

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