

Satisfaction of Cardiac Surgery Patients Regarding Post-operative Physical Therapy: A Cross Sectional Study

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Highlights:

- ▶ Satisfaction of cardiac surgery patients regarding post-operative physical therapy
- ▶ Benefits gained by cardiac surgery patients from post-operative physical therapy sessions
- ▶ Post-operative physical therapy interventions used for cardiac surgery patients

Abstract:

Coronary Artery Disease (CAD) is a primary reason of demise globally, being the paramount in the people matured 55 years or beyond. Listening and observing the behavior of cardiac surgery patients regarding post-operative physical therapy inside the hospital is critical to understanding and improvement for the services as well as the hospital environment.

Objective:

To find out the levels of satisfaction of cardiac surgery patients regarding post-operative physical therapy.

Methodology:

A cross-sectional survey with convenient sampling technique was used. Modified standardized questionnaire by LIMA *et al.*,¹ was taken to determine the satisfaction of cardiac surgery patients regarding post-operative physical therapy in sample size of 31 patients of both genders, who underwent cardiac surgery in Pakistan Employee Social Security Institute (PESSI), Lahore. The data was collected and analyzed by means of SPSS v.23.

Results:

20 (64.5%) respondents were very much satisfied with the post-operative physical therapy, 10 (32.3%) respondents were neutrally satisfied and 1 (3.2%) respondent was not satisfied.

Conclusions:

Based on the perspective of the patient, we

concluded that post-operative physical therapy in cardiac surgery patients contributes to the success of the post-operative rehabilitation process.

Key Words:

Patient satisfaction, cardiac surgery, Post-operative Physical therapy

Introduction:

Coronary Artery Disease (CAD) is a disease in which a waxy substance called plaque builds up inside the coronary arteries. These arteries supply oxygen-rich blood to our heart muscles.² When plaque builds up in the arteries, the condition is called atherosclerosis.³ This process takes several years.⁴ CAD is a leading cause of death worldwide, being the first in the population aged 60 years or above.⁵ The incidence is increasing in developing countries, in part due to increased longevity, urbanization, and changes in daily habits. Cardiac surgery can be defined as a process of re-establishment and recovery of the vital capacities consistent with the functional capacity of the heart of those patients who previously had heart disease.⁶ It is a process by which the patient is in search of rehabilitation from the physical, mental, and social standpoint. In recent years, there has been a significant increase in the number of patients with heart diseases requiring intensive care, medical, or surgical.⁷

Physical Therapy (PT) has been presumed an acknowledged part in the procedure of attainment of the process of cardiac rehabilitation throughout the hospital stay.⁸ Post-operative Physical Therapy (PoPT) management is frequently recommended to cardiac surgical procedure patients throughout their stay at the hospital.⁹ The PT management

comprises of early mobilization, range of motion exercises, coughing techniques, chest wall vibrations, deep breathing exercises, incentive spirometry, manual coughing support from the physical therapist and low-key breathing exercises.¹⁰ LIMA *et al.*, investigated in 2011 that, PoPT in cardiac surgical procedure guarantees to the triumph of the post-operative rehabilitation and restoration progression. As for the overall quality of care delivered, 9.9% of patients described it as fair, 56.8% as good, and 33.3% as great. This shows that the sample is satisfied with the service provided.¹

The purpose of the current research is to find the present-day practice of PoPT for cardiac surgical procedure patients in Lahore, Pakistan, its benefits and satisfaction of patients. This study will help to understand about PT practice in coronary care unit to improve patient's quality of life post-operatively. Hence, by knowing the patient's satisfaction and perception, more efforts can be made to for speedy recovery, well-being and health status.

Methodology:

A cross-sectional study design with convenient sampling technique was used. Modified standardized questionnaire was used to determine the satisfaction of cardiac surgery patients regarding PoPT in sample size of 31 patients who undertook cardiac surgery in Pakistan Employee Social Security Institute (PESSI), Lahore. After taking the informed consent, the data were collected and analyzed by SPSS. The questionnaire's first part was directed towards collecting the demographic data and second part was concerned with questions such as routine of PoPT care given, the PT's attention and guidance given in the treatment, average time of the PoPT session, amount of benefit gained by the PoPT, level of satisfaction regarding PoPT and the safety during the session.

Results:

There were 22 (71%) males and 9 (29%) females, the mean age of the patients was 54.23 ± 11.47 years. The minimum age was 26 and maximum

age was 70. There were 28 patients from low socioeconomic status (90.3%), 2 from middle socioeconomic status (6.5%) and 1 from high socioeconomic status (3.2%)(Table 1).

Demographics					
Gender	Males		Females		Total
	22		9		31
Age	Mean ± SD		Minimum Age		Maximum Age
	54.2258±11.47377		26		70
Socioeconomic Status	Low	Middle	High	Total	
	28	2	1	31	

Table 1: Demographic profile of patients

20 (64.5%) patients were comfortable during their post-operative physical therapy session and 11 patients(35.5%)were not comfortable during their PoPT session (Table 2).01(3.2%) patient was not satisfied, 10(32.3%) patients were just satisfied and 20(64.5%) patients were very much satisfied with the PoPT interventions they were receiving or they had received (Table 3).

Were you comfortable during the post-operative physical therapy session?	Frequency (%)
Yes	20 (64.5)
No	11 (35.5)
Total	31 (100.0)

Table 2: Comfort of Patients after Physical Therapy

Satisfaction Level	Frequency (%)
Not satisfied	1 (3.2)
Satisfied	10 (32.3)
Very much satisfied	20 (64.5)
Total	31 (100.0)

Table 3: Patient satisfaction regarding post-operative physical therapy

Discussion:

Physical therapy in the preoperative period is also recommended because it is intended to guide and assess patients in order to identify risk factors that may increase the incidence of

pulmonary complications and to allow the institution to conduct the most appropriate PT¹¹ but in this study no preoperative PT was conducted, patient was given only instructions and lectures regarding PT treatment after cardiac surgery. as 100% patients answered yes to for whether the patient was given any instruction or lecture regarding PT treatment after cardiac surgery.

When the patients were asked about the length of sessions, it was seen that the length of the session was optimal in relation to literature data because 100% of the patients reported they have been treated in a length of average time less than ten minutes with an exception of maximally reaching 10 minutes. According to Alexandre B, the supervised exercise sessions should be performed at least twice a day, usually ending in 10 to 15 minutes, including the time to both education and informal conversation.¹² The initial duration of the sessions should be 5 to 10 minutes, progressing gradually from 20 to 30 minutes.¹³

Current study is consistent with the literature when the frequency of sessions is verified, because the data collected show that the highest percentage of patients was treated twice a day (90.3%). With regard to the respect of the physical therapist with the patient, all the patients reported they have received professional attention and respect from the professional they were attended by. The patients also reported that the professionals used an easy to understand language to explain them the purpose of the techniques and maneuvers used in their treatment.^{14,15}

Patients' perceptions about the importance of PoPT were also evaluated by asking them about the knowledge of the reasons by which they had to do PT after surgery.¹⁶ 100% of the patients reported they believe the physical therapy treatment could improve their health.¹⁷ The PoPT in the hospital aims to escape the negative effects of prolonged bed rest, encourage to faster return to daily PT, maintaining functional capacity, developing patients'

confidence, reduce the psychological impact (such as anxiety and depression), prevent pulmonary complications, maximize the chance of early discharge and provide the foundation for a home-based program.¹⁸ This was witnessed when patients were asked why they believe that PT might improve their health status. Only 10 out of them expressed that with PoPT, they would get better faster and they would return to normal life shortly after surgery.¹⁹ This vision can be justified by the fact that these patients really believe that PoPT can improve their condition. Therefore, they can return more quickly to their daily activities.²⁰

Conclusions:

Patients were satisfied with the PoPT and it was beneficial for them, contributing to their recovery and early returning to their normal routine. So established on the view points of the patients, we may accomplish that PoPT in patients who underwent cardiac surgical procedures subsidizes to the attainment of the post-operative rehabilitation process.

Recommendations:

It is recommended to conduct a study like this on a larger scale including more hospitals who offer PoPT after cardiac surgery procedures. The advantages and benefits of the PoPT interventions after cardiac surgical procedures should be given more importance and value in hospital settings.

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