

Problems faced by clients and factors affecting post-operative recovery after open-heart surgery in selected hospitals in Kathmandu

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Abstract

Introduction: Open-heart surgery is a stressful condition and people suffer from various physical, psychological, social and economic stress after open-heart surgery. These factors also affect the recovery and survival after the surgery. This is a descriptive purposive study among adult clients of two tertiary hospitals of Kathmandu with the objective of finding the problems faced by the clients and factors affecting post-operative recovery after open-heart surgery.

Method: Population consisted of 50 clients who had already undergone open-heart surgery. A purposive sampling was done information collected on physical, psychological, social and economic problems using pre-tested structure questionnaire through interview method. The data was analyzed by descriptive and inferential statistics to identify the association between research variables.

Results: Fatigue and discomfort were the most frequently experienced physical complaints. The clients with less than 12 months post-operative period mainly suffered physical problems. Female clients mainly suffered from psychological problems like sadness, anxiety, loss of interest and irritability. Inadequate interpersonal interaction, social and religious participation and the family support were major social tribulations that were significantly higher among female clients. Likewise, decreased follow-up frequency, family disputes and marital disharmony were chief problems due to financial constraints.

Conclusion: This study concludes that clients suffer from a variety of problems associated to physical, psychological, social and economic aspects after open-heart surgery. For this reason, study strongly indicates the need for regular provision of educational sessions and proper counseling services to all clients including their families about these problems so that possible complications and the sufferings are less.

Key words: open-heart surgery, client's perception, post-operative recovery

Introduction

Cardiac disease is the leading cause of death in the United States and other developed countries for men and women of all racial and ethnic groups¹. Today it is responsible for approximately one third of deaths worldwide, and the figure will surely increase in developing countries². Rheumatic heart disease (RHD) is one of the common cardiovascular disease in Nepal where many people are not getting proper nutrition and

health care. The disease disproportionately affects the poor forcing them to mortgage their homes and land and still fall short of the money needed for treatment³. Likewise, valve replacement surgery occupies the second most commonly done open-heart surgery in Nepal⁴.

Studies show that clients suffer from various physical, psychological, social and economic stresses after the valve replacement surgery. Both physical as well as

psychological distresses affect the survival after the surgery. Open-heart surgery had provided sufficient stress to precipitate post-operative psychological disturbances in a high proportion of patients⁵. A study suggested that after open-heart surgery, functional outcomes and symptoms relief may not automatically translate into improved quality of life⁶. Patient's physical quality of life is unlikely to be normal as before. Newman (2003) found the clear evidence for the benefit of social support with the reduced morbidity and mortality after the cardiovascular surgery in various studies.

There are few studies focused on socioeconomic status as a determining factor for poor surgical outcome. Several studies have demonstrated an inverse relationship between socioeconomic status and access to specialist care, invasive cardiac procedure and mortality⁷. Therefore, it requires a clear understanding of physical, psychological and social aspects after open-heart surgery that influences the quality of life.

Open-heart surgery presents various physical, psychological, social and economic troubles. Researchers have recognized the unique impact of psychosocial factors, such as anxiety, depression and social support, on long-term recovery. Psychosocial impact results in worse prognosis, high medical costs, and higher mortality after the cardiovascular surgeries⁸. Various studies have concluded that socioeconomic deprivation is an independent predictor of poor cardiovascular outcome⁹. That is why, assessment of impact of these factors is very crucial for survival of the affected.

Open-heart surgery represents a tremendous burden on patient, families and societies. There are many studies conducted across the globe on psychological, social, socioeconomic outcomes after surgery but there is no definite data in Nepal that would permit the comprehensive assessment of open-heart surgery outcomes. We conducted this study with the aim of finding the problems faced by clients after open-heart surgery in above mentioned selected hospitals in Kathmandu Nepal.

Methods

This study was conducted in two cardiac hospitals: ManMohan Cardiac, Thoracic, Vascular & Transplant

Center at TU Teaching Hospital and Sahid Gangalal National Heart Centre (SGNHC) Kathmandu because these hospitals provide tertiary level medical and surgical care to both adult and pediatric patients. The study was conducted on clients who underwent valve replacement surgery due to various valvular heart diseases in these hospitals.

After ethical clearance and official approval from the hospital authorities, we collected the data using convenience-sampling technique and conducted the study from 2069/11/25 to 2070/01/05. We included 25 valve-replaced clients at SGNHC and another 25 at ManMohan Cardiac, Thoracic, and Vascular & Transplant Center outpatient department. We explained the respondents about the purpose of this study and took verbal consent from them. We collected the data by interview method while the clients were waiting for their turn for consultation in outpatient department and after finishing their checkup.

After data collection, we checked for completeness of information, edited, coded and analyzed using computerized statistical package. We used X2 to determine the association between the variables.

Results

In the study, 40% males and 60% female@ranging from age 11 to 70 years were involved. Most of them (56%) belonged to the age group 31-50 years. Most of the respondents (64%) were married. Regarding ethnicity, 34% were Mongolian followed by 32% Newar and 18% others. Most of the respondents (42%) believed in Hinduism. Among all respondents, 68% were literate and 28% were farmers. More than half of the respondents (56%) belonged to lower class and 20% were from higher class. Highest numbers of respondents (68%) were from the rural area whereas 32% were urban dwellers.

The data obtained from this study include the following different problems experienced by the clients who underwent open-heart surgery: physical problems based on gender, psychological problems in different age group, different social problems based on marital status, financial support system for their health care and causes of financial constraints in different socioeconomic classes.

Table 1: physical problems experienced based on gender (N=50)

Problems faced	Male	Female	Total
Chest pain	12	14	26
Difficulty in Breathing	16	22	38
Palpitation	16	20	36
Fatigue	20	18	38
Discomfort	20	18	38

More than half the respondents (52.0%) suffered from chest pain, 76% had trouble in breathing, fatigue and discomfort while 72.0 % experienced palpitation. All male respondents suffered discomfort in their chest followed by fatigue (90.0%), palpitation (80.0%), difficulty in breathing (80.0%) and chest pain (60.0%). Female clients complained of difficulty in breathing (73.3%) palpitation (66.7%), fatigue (66.7%), discomfort (60.0%) and chest pain (46.7%). This study showed no statistically significant difference in post-operative complaints based on gender.

Table 2: Psychological problems based on age (N=50)

Problems faced	(30 and below)	(31-50)	(51+ above)	Total
Felt sad, depressed, lost interest	8	14	12	34
Felt worried, anxious about future	8	28	10	46
Felt angry, irritable	10	24	12	46
Blamed oneself for things, felt guilty	6	26	12	44

Majority of the clients (92.0%) were worried, anxious about future as well as angry and irritable. Similarly, 88.0% blamed oneself for things and felt guilty where as 68.0% felt sad, depressed and lost their interest. However, there was no major difference based on age on psychological problems like level of anxiety of their future and features of depression.

Table 3: Association between social problems and marital status (N=50)

	Not Present No (%)	Married	Unmarried
Interaction with other people	38(76%)	28(56%)	10(20%)
Participation in social, Religious activities	36(72%)	20(40%)	16(32%)
Discussing problems with family members	35(70%)	22(44%)	13(26%)

It shows that 76% faced problems in interaction with other people, 72% faced problems in participation in social, religious activities while 70.0% faced problems in discussing their problems with family members. Majority (87.5%) married respondents felt problem in interaction with other people followed by discussing problems with family members (68.8%) and participation in social, religious activities (62.5%). Majority (88.9%) unmarried respondents showed no interest on participation in social, religious activities followed by discussing problems with family members (72.2%) and interaction with other people (55.6%). The study showed that married people interact more with others ($\chi^2= 4.8126$, $p>0.05$).

Table 4: Distribution of respondents according to the financial support (N=50)

Variables	No	Urban	Rural
Family members	13(26%)	8(16%)	5(10%)
Social organization	5(10%)	1(2%)	4(8%)
Loan from selling land	10(20%)	3(6%)	7(14%)
Loan from friends	7(14%)	3(6%)	4(8%)
Loan from banks	15(30%)	9(18%)	6(12%)

The highest numbers of respondents from urban area got financial support from bank loan (56.3%) while highest number of respondents from rural area got financial support by selling their lands (20.6%). This study showed that there is more support from family members ($\chi^2= 7.0441$, $p>0.05$) as well as financial loan from banks ($\chi^2= 7.7206$, $p>0.05$) in urban residents.

Table 5: Problems faced due to financial constrains (N=50)

Variables	No	Lower Class	Medium Class	Upper class
Decreased follow up frequency	16	12	4	0
Family disputes	11	4	3	3
Increased debts	7	5	2	3
Marital disharmony	10	5	2	3
Others	6	2	1	1

Majority of clients from lower economic status had less follow up frequency due to financial constraints (42.85%) as well as marital disharmony, increased debts (both 17.85%), family disputes (14.28%) and other financial problems (7.14%) in comparison to clients belonging to middle class, or upper class of economic status.

Discussion

Many people may develop physical, psychological, social and economic problems after major surgery. We designed this study to find out various problems after open-heart surgery among clients of two tertiary hospitals, Sahid Gangalal National Heart Center (SGNHC) and Man Mohan Cardiac Thoracic and Vascular Center. We interviewed fifty clients with open-heart surgery attending surgical outpatient clinic of these hospitals who came for follow-up.

Post-operative patients experienced physical problems like difficulty in breathing, fatigue and discomfort both in mild and moderate degree. More than half (52.0%) had chest pain. This result is consistent with a study, which reported that the fatigue persisted 1 to 2 years along with the continuing chest pain with 67% of patients reporting persistent severe to very severe pain 12 months post-surgery¹⁰. Some study also showed that there is no significant association between ages and physical problems and age is not related to postoperative illness symptoms¹¹.

Post-operative psychological problem like feeling worried and anxious about future, feeling angry and irritable, blaming self for things, feeling guilty, sad, depressed, loss of interest is also a common phenomenon. A study reported that psychological

problems after a cardiac surgery are very common including anxiety, depression, restlessness, irritability, panic and anger due to feelings of powerlessness, lack of control and reduced self-esteem¹². Another study reports that up to 72% of open heart surgery patients have negative emotional states such as anger, anxiety, hostility and depression after cardiac surgery¹³.

We found that post-operative patients also suffer from social problems like unable to interact with other people, perform religious activities and unable to discuss their problems with family members. This result is consistent with a study that mention that among 232 respondents, 97 had socially participated and 135 respondents had no social participation¹⁴. The risk for death from the combination of the lack of social participation and infrequent attendance at religious services was nearly three times greater.

The various way of financial support for clients is from bank loan, selling their land, help from family members or friends and support from social organizations. This study showed that urban people are supported more from bank loan or family members. This finding is supported by other study which mentioned that the disadvantaged social background as a negative influence on long-term survival after open-heart surgery¹⁵. Same study findings suggested that poor people might not be able to afford prescribed drugs or undergo regular cardiac evaluation. Similarly, other study findings concluded that ongoing anxiety and stress, relationship maladjustments; financial problems and the effect on family life were significant outcome after cardiac surgery¹⁶.

Conclusion

This study concludes that clients suffer from a variety of problems associated to physical, psychological, social and economic aspects after open-heart surgery. For this reason, study strongly indicates the need for regular provision of educational sessions and proper counseling services to all clients including their families about these problems so that possible complications and the sufferings become less.

Conflicts of interest: None declared

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