



## **A STUDY TO ASSESS THE NURSES' KNOWLEDGE, ATTITUDES, AND PRACTICES ABOUT REHABILITATION OF PATIENTS AFTER HEART VALVE SURGERY IN RAJASTHAN**

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### **Background of the study:**

Heart valve repair or replacement surgery is a medical procedure for the treatment of moderate structural damage of the heart valves often following rheumatic fever. The surgical treatment of choice for valvular heart disease can be either surgical valve repair or valve replacement when heart valves become floppy and leak. The diseased valve is replaced with either a mechanical (artificial) prosthesis, or biological tissue valve. Although heart valve surgery may improve the patients' quality of life, it is associated with potential complications, such as thrombo-embolism, bleeding, and endocarditis, to mention a few (Harris, Croe & Cao 2015). Nonetheless, depending on the risks and potential complications involved from heart valve repair and replacement surgeries, patients are expected to regain a normal life and health. Therefore, there is a need for a comprehensive, medically supervised interventions of a long-term cardiac rehabilitation programme, for patients after surgical interventions to improve their physical function, prevent potential complications, and thereby improve patients' quality of life. The core component of cardiac rehabilitation after heart valve surgery includes medical evaluation or patient assessment, prescribed physical activity and exercise, training, cardiac risk factor modification, diet and nutritional counselling, smoking cessation, and psychological counselling and management, which are implemented in four phases As members of a multidisciplinary team for cardiac

rehabilitation, nurses play a significant role in the implementation of cardiac rehabilitation and should do so based on adequate knowledge, positive attitudes, and efficient practice for the implementation of the core components for the phases of cardiac rehabilitation for them to deliver quality nursing care to patients. A cardiac rehabilitation programme is a medically supervised intervention to assist patients in recovery after heart surgeries and to prevent potential complications. Nurses should have the knowledge, a positive attitude, and good practices to improve patient quality of life during the recovery process.

### **Materials and method:**

A quantitative, descriptive and analytical approach was applied to explore and describe the knowledge, attitudes, and practices of nurses regarding rehabilitation of patients after heart valve surgery. Descriptive design was employed to present the accounts of the nurses' knowledge, attitudes, and practices regarding cardiac rehabilitation. An analytical approach was used to determine the association between the knowledge, attitudes and practices, and the demographic variables of nurses. Data were collected through self-administered questionnaires and analyzed using SPSS Version 26. Descriptive statistics were used and Fischer's Exact test for associations of variables was performed. The study was conducted at JK Hospital. The Cardiac Unit including Cardiac ICU has a 26 nursing staff members who provide care to patients with cardiac conditions, such as: open heart surgeries, cardiothoracic surgeries, Cardiac catheterization laboratory, services treatment for renal degeneration, and outpatient cardiac clinic services. A self-administered questionnaire comprising 92 items of the Likert Scale was used. The Likert Scale had 4 points (the highest point being 4 and the lowest being 1) of definitely, probably, definitely not, and don't know to rate the nurses' knowledge on, about cardiac rehabilitation. A quantitative, descriptive and analytical approach was applied to explore and describe the knowledge, attitudes, and practices of nurses regarding rehabilitation of patients after heart valve surgery. Descriptive design was employed to present the accounts of the nurses' knowledge, attitudes, and practices regarding cardiac rehabilitation. An analytical approach was used to determine the association between the knowledge, attitudes and practices, and the demographic

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### **Results:**

The study results showed a high level of knowledge, good attitudes, and poor to fair practices toward cardiac rehabilitation. However, the respondents demonstrate a lack of knowledge about the indications, and benefits of cardiac rehabilitation, negative attitudes regarding counselling of patients on sexual activities, and poor practice regarding exercises and counseling of patients and caregivers on cardiac rehabilitation. All 23 questionnaire were completed, thus yielding a response rate of 100%. Of the 23 respondents, 21 (91.3%) were female while 2 (8.7%) were male. With regard to age, 8 (34.8%) belonged to the age group of 20–29 years old, while 4 (17.4%) were from the age group of 30–39 years old, whereas 11 (47.8%) were from the age of 40 years and above. Regarding the rank in the nursing profession, 3 (13%) were enrolled nurses, 17 (73.9%) were registered nurses, and 3 (13%) were senior registered nurses. The majority of the participants (n = 11, 47.8%) have completed Bachelor's degree in Nursing Science, 5 (21.7%) have a postgraduate degree in Nursing Science, and 3 (13%) have a Diploma in Nursing Science. In addition, 3 (13%) have a certificate in nursing and midwifery science, while the remaining 1 (4.3%) participant has a master's degree. Furthermore, there is a positive relationship between the respondents' older age, senior rank, and having been trained I cardiac conditions and their knowledge, attitudes and practices regarding some core components of cardiac rehabilitation with P-value < 0.050.

## **Conclusion:**

A lack of knowledge about some aspects of cardiac rehabilitation, negative attitude towards some aspects of cardiac rehabilitation, and average-to-poor practice regarding cardiac rehabilitation among the nurse respondents of this study indicated that nurses at the cardiac unit and cardiac clinic are not able to provide comprehensive care to patients after heart valve repair and replacement surgery, for patients to cope with outcomes of surgery. Neither are they able to provide relevant support to the caregivers of patients who had heart valve repair and replacement surgery, for the latter to cope with the demand to care at home. Adverse findings indicate the need for educational information to empower nurses with essential knowledge and skills about cardiac rehabilitation. As a result, a rehabilitation programme was developed for nurses to support patients who had heart valve repair and replacement surgery and their caregivers in support of patients' recovery after heart valve surgery.

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