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A Study to Assess the Knowledge of Home Care Management of Permanent Pacemaker Implanted Patients in Army Hospital (R&R)

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Abstract

This study aims to examine the level of knowledge of patients regarding home care management after permanent pacemaker implantation in Army hospital (R&R). Delhi. Descriptive survey approach with non-experimental descriptive design was used to assess the knowledge of 40 patients with permanent pacemakers implantation in Army hospital (R&R). The sampling technique used was non probability purposive sampling. Structured knowledge Questionnaire was used to assess the knowledge of home care which consisted of 20 items. The results reveal that 62.5% of the samples had inadequate knowledge, 25% of the patients had moderate knowledge and 12.5% of the samples had adequate knowledge regarding home care management after permanent pacemaker implantation. The mean score for level of knowledge was 9.13, SD = 3.406, range from 3-18 and mean score percentage was 45.6. There was significant association found between level of knowledge and selected socio demographic variable-Marital status.

Keywords: Knowledge, home care management, permanent pace maker

1. Introduction

Cardiac pacing is an emerging lifesaving procedure that is being widely used in the recent times. Therefore, it is considered to be the vital for health care professionals to be aware of patient's knowledge and experience after cardiac device implantation and also the impact of these cardiac implants on their day to day life. Timing is everything when it comes to the functioning of heart. Blood cannot flow where it needs without strong heartbeat. Normally, the pacemaker of heart is our Sino-atrial node. If there is any disease in heart that will block this node causes arrhythmias that require interventions to keep a good healthy heart to work effectively and efficiently. More than 200000 pacemakers are implanted each year in India and the numbers are growing each year Knowledge assessment and educating cardiac patients in how to lead an active life after a pacemaker implantation presents many challenges for nurses who are involved in the care. Sudden death is the one of the most common reasons of death worldwide which is prevented by placing a pacemaker.

Studies have proved that 60 percent of cardiac deaths occur due to arrhythmia because of a lack of access to pacemakers. Normally the heart produces its own electrical impulse allowing it to beat but in certain cases the heart may incapable to adjust the rate causing a slow heart beat or faster heartbeat. Usually this trouble has been overcome via use by a small battery operated device called as pacemaker that conduct electrical stimuli to the heart muscle which helps in controlling the heart beat in case of arrhythmias this helps the

person in resume to normal life. Teaching patients is the essential points regarding to pacemaker management can prevent the complications. Patient education became the vital part of the therapeutic approach in cardiac patients with pacemakers. Patient not have any knowledge about the pacemaker and its complications is one of the most serious problem. Nurses play a crucial role in patient education.

Knowledge assessment and educating these patients in helping them to lead an active life after a Pacemaker implantation present many challenges for nurses who are involved in care. Awareness about Pacemakers among these patients will reduce their misconceptions which impede them from leading a normal life after permanent pacemaker implantation (PPI).

Pacemaker implantation is often a difficult situation for the patient and his/her family and is influenced by several factors such as early and late complications after surgery, the need for regular follow-up and the awareness that it is a lifelong treatment. Often, patients are not prepared for the major changes that may be needed in almost every aspect of their life. It affects patients' physical, mental and functional status and their social relationships. Therefore, nurse-patient interaction provides key opportunities for educational support and interventions which aim at facilitating positive patient and family adjustments after the permanent pacemaker implantation.

1.1. Statement of the Problem

“A Study to assess the knowledge of home care management of permanent pacemaker implanted patients in Army Hospital (R&R)”.

1.2. Objectives of the Study

- i). To assess the knowledge of the patients regarding homecare management after permanent pacemaker implantation in Army hospital R&R.
- ii). To assess the relationship of knowledge with selected variables.

2. Methodology

H₁: There will be a significant association between knowledge of home care management of permanent pacemaker implantation with their selected demographic variables.

The research approach adopted for this study was descriptive survey approach and a non-experimental descriptive research design was used to assess the knowledge about home care after permanent pacemaker implantation. The study is conducted on 40 cardiac patients in Army hospital (R&R) who have undergone permanent pacemaker implantation and attending OPD/ICU clinics using non probability purposive sampling technique. The selected hospital is a super speciality hospital equipped with all sophisticated facilities. The study variable was identified as knowledge of home care management of permanent pacemaker implantation and demographic variables were identified as-Age, Sex, Year of Implantation of pacemaker, Occupation, Educational qualification, presence of other health problems and marital status. The data was collected by using Structured Knowledge questionnaire. The tool consisted of two parts, Section A, which included questions to collect information about demographic variables and Section B, which included 20 questions to assess the knowledge about home care management after permanent pacemaker implantation. Each item was having 4 choices and the respondents were instructed to select one suitable option. The final score was calculated and knowledge level of patients was interpreted as follows:

- Inadequate knowledge < 50%
- Moderate Knowledge 50-75%
- Adequate knowledge > 75%

3. Results and Discussion

The data obtained from the study subjects were analyzed and interpreted in terms of the objectives and hypothesis of the study. Descriptive and inferential statistics were used for the data analysis at the probability level set at 0.01. The findings reveal that among forty patients, 25(62.5%) of them had inadequate level of knowledge, 10(25%) of them had moderately level of knowledge and 05(12.5%) of them had

adequate level of knowledge regarding homecare management after permanent pacemaker implantation.

Table 1: Distribution of patients regarding homecare management after permanent pacemaker implantation. n = 40

S. No.	Level of knowledge	No.	%
1.	Inadequate knowledge	25	62.5
2.	Moderately adequate	10	25
3.	Adequate knowledge	05	12.5
Total	Overall	40	100

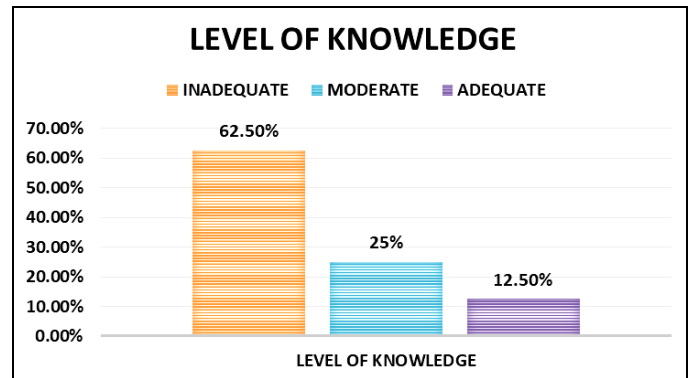


Fig 1: Level of knowledge of patients regarding homecare management after permanent pacemaker implantation.

Table 2: Mean, SD, Range and Mean Percentage of knowledge of patients regarding homecare management after permanent pacemaker implantation. n=40

S. No	Variable	Maximum score	Range	Mean	SD	Mean percentage
1.	Knowledge	20	3-18	9.13	3.406	45.6

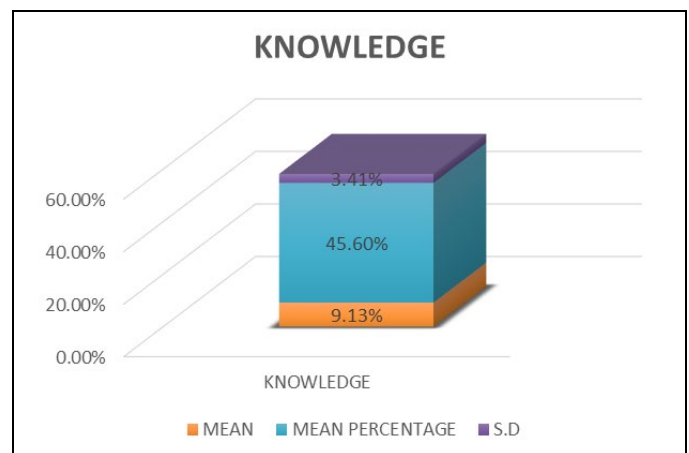


Fig 2: Mean, SD, Range and Mean Percentage of knowledge of patients

Table 3: Association of knowledge with selected demographic variables of patients like age, sex, year of pacemaker implantation, occupation, education qualification, any other health problem disease, marital status. n =40

Demographic Variables		Knowledge			Chi-square test
		Inadequate	Moderate	Adequate	
Age	21-30 yrs.	02	01	01	9.567, df=6, NS
	31-40 yrs.	03	04	03	
	41-50 yrs.	04	00	00	
	Above 50	16	05	01	
Sex	Male	12	04	02	0.242, df=2 NS
	Female	13	06	03	
Year of implantation of pacemaker	Below 1 year	16	06	03	2.357, df=4 NS
	1-5 years	07	04	01	
	More than 5 years	02	00	01	
Occupation	House wife	11	04	01	7.015, df=8, NS
	Serving	06	01	02	
	Ex-service man	04	01	00	
	Others	02	03	02	
	DSC	02	01	00	
Educational Qualification	Till 10	05	01	02	6.113, df=6, NS
	10+2	07	01	01	
	Graduation	11	05	02	
	Above graduation	02	03	00	
Presence of other diseases	Cardiac disorders	04	03	01	7.482, df=6, NS
	Hypertension	06	03	01	
	Diabetes Mellitus	02	00	00	
	Kidney disorders	13	04	01	
Marital status	Single	02	03	02	20.512, df=4, S
	Married	23	07	01	
	Divorced	00	00	02	
	Widow	00	00	00	

P<0.05

The above table show the association of level knowledge with demographic variables of patients regarding homecare management after permanent pacemaker implantation. For the association chi-square test has been used. The obtained chi-square value show significant association between level of knowledge with marital status and there was no significant association with age, sex, year of implantation of pacemaker, occupation, educational qualification, Presence of other disease Thus, it is concluded that there is a significant association between knowledge of home care management of permanent pacemaker implantation with their selected demographic variables. Hence we accept the research hypothesis H_1 .

4. Conclusion

According to this study, the overall level of knowledge regarding homecare management after permanent pacemaker implantation that among forty patients, 25(62.5%) of them had inadequate level of knowledge, 10(25%) of them had moderately level of knowledge and 05(12.5%) of them had adequate level of knowledge regarding homecare management after permanent pacemaker implantation. The chi-square value shows significant association of the level of knowledge with their marital status.

Nursing Curriculum must comprise of different methods for the future nurses to approach the family and heart patients and teach them different methods to tackle the problems of implantation of pacemaker to improve their knowledge and

there by promoting patient wellbeing. Nursing personal can participate in more home care programmes and Patient training programmes in order to improve their knowledge, not only that they can educate family and community. This is again useful in the promotion of health and prevention of this illness. The developing countries like India, nurses have done very little research on this homecare management for pacemaker implantation. This research paper will be useful for the other nursing personals to motivate them self not only in attitude also in research, and use as literature in future for large-scale studies.

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