EFFECTIVENESS OF COMPREHENSIVE NURSING INTERVENTION ON THE PHYSICAL AND PSYCHOSOCIAL OUTCOME OF PATIENTS WITH CORONARY HEART DISEASE OF A SELECTED HOSPITAL IN MANGALORE

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ABSTRACT

Background of the study

Coronary Heart Disease (CHD) is the number one killer disease of modern times. It strikes Indians early and kills many of them in their productive period of life. It is a progressive disease as in recent times we come across an overwhelming number of patients seeking admissions to hospitals with cardiovascular manifestations. Cardiovascular disease (CVD) which was considered as the disease of the affluent is no more considered so, as it is also seen affecting the poor due to the increase in use of tobacco, low levels of education, lack of clarity of risk factors and unhealthy lifestyle practices which is seen both in the urban as well as rural settings. The clinical presentations of Coronary Heart Disease can induce a profound physiological and psychosocial impact and impose a great burden on the affected individuals. Cost effective strategies like the nurse-led intervention programme are directed at the enhancement of the recovery process so as to prevent the subsequent cardiac morbidity and mortality, promote the health status of patients, and ultimately help patients with Coronary Heart Disease develop a positive attitude towards their life and a sense of control.

Aim

The study aimed to evaluate the Effectiveness of a Comprehensive Nursing Intervention on the Physical and Psychosocial outcome of patients with Coronary Heart Disease of a selected hospital in Mangalore.

Method

An Experimental design was adopted. One hundred and twenty subjects were recruited for the study from the cardiothoracic super-speciality block of a 1200 bedded multi-speciality hospital. Subjects for the study were screened based on the inclusion criteria. Eligible subjects were invited to participate in the study after obtaining their informed consent. Subjects were matched based on the gender and smoking habits and were allocated randomly to Intervention (n=60) and Control Group (n=60). Each participant in the Intervention as well as the Control Group were interviewed individually by the investigator in the hospital set-up. On day one, after the initial rapport and assessment of blood pressure, baseline information and administration of questionnaires were carried out to determine the lifestyle practices, level of anxiety, depression and health related quality of life of subjects with existing CHD.
Standardized tools namely Beck’s Depression Inventory -II, Beck’s Anxiety scale and SF-36 were utilized for the study. The subjects of the Intervention Group were enrolled in the Comprehensive Nursing Intervention Programme which comprised of a structured education programme based on the heart health manual developed by the investigator. Individual 5 sessions (one-two session/day), which were adequately supported with visuals and demonstrations on various aspects of cardiovascular health were provided by the investigator. Each session lasted for duration of 60-90 minutes. The sessions included general information on anatomy and physiology of the heart, pathophysiology, signs and symptoms and risk factors of Coronary Artery Disease, various aspects of cardiovascular health such as control of blood pressure, cessation of smoking, dietary counselling, physical activity, medication and its side-effects and management of stress. Video CD on demonstration of ‘Deep Breathing Exercise’ performed by the investigator was shown for 15 minutes which was followed with return demonstration by the subject under close supervision of the investigator. The teaching sessions with deep breathing exercises were carried out for 3-5 days depending on the period of hospitalization. Health outcomes were evaluated during the follow-up sessions in the Cardiology OPD which were informed and fixed in consultation with the cardiologist at 2, 6 and 10 weeks. At 4 weeks telephonic follow up was made to the subjects. Follow-up sessions involved reinforced learning, feedback and clarification of doubts on an individual basis.

**Results**

On completion of the Comprehensive Nursing Intervention Programme the subjects in the Intervention Group demonstrated a significant change in their dietary behaviour (F=7.09, p<0.001), activity behaviour (F=3.08, p<0.05), and overall lifestyle practices (F=3.59, p<0.05). Significant improvements were observed in the physical health of the subjects in the Intervention Group compared to the Control Group subjects (F=5.49, p<0.001). These positive impacts were maintained at ten weeks follow-up also. With regard to the blood pressure, significant changes were found only in the diastolic blood pressure between the study groups, which was observed more between 2-10 weeks post follow up period (F=2.613; p<.05). Changes in the anxiety level were comparable between the two groups at 2 weeks (p<.05), 2-6 weeks (p<.05), 2-10 weeks (p<.001) and 6-10 weeks (p<.001) post follow up period.

**Conclusion**

This is a pioneer study of a nursing initiative taken to evaluate the effect of a Comprehensive Nursing Intervention Programme on patients with existing Coronary Heart Disease. The findings of this study affirm the need of establishing nurse-led clinics in the practice settings as an effective strategy in promoting the health among patients with Coronary Artery Disease. The concept of nurse-led clinics is a new entity in India and thus the present study can serve as a starting point to empower nurses to play a pioneering role in chronic disease management.

**Keywords**

Effectiveness; Comprehensive Nursing Intervention; Physical and Psychosocial Outcome; Coronary Heart Disease.