

CARDIAC REHABILITATION AND LIFE AFTER MYOCARDIAL INFARCTION

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Abstract

BACKGROUND: Myocardial infarction is the major cause of death globally. It also leads to an impact in the change in lifestyle and quality of life among the patients. The study aimed at exploring the impact of cardiac nursing interventions among post myocardial infarction patients in terms of their lifestyle modification, quality of life and adherence to medications. **METHODS:** This was a qualitative phenomenological study that included 10 samples of post-myocardial infarction patients from a cardiology unit, chosen using purposive sampling approach. The semi structured interview schedule was used to collect data through in-depth interview. The in-depth interview was conducted before (Pre) and after (Post) the Nurse led Cardiac Intervention (rehabilitation). The data collected was analysed using thematic content analysis. **RESULTS:** The pre intervention themes included were **Desideratum, Futuristic outlook, New Habits, Supportive concerns, Economical deportation and Psychological Inconvenience.** The post intervention themes included were **Wellness at Hospital, Family, Mental well- being, Getting out of life alive, Physical health, New Practices, and Impact of interventions.** **CONCLUSION:** The results suggest that the cardiac nursing intervention has helped out in transforming the lifestyles of the patients with post myocardial infarction. Furthermore, the preventive aspect is very important to alleviate the detrimental effects of the disease on the patients and their family members. The necessary information will help to transform the life of the patients.

Keywords: Cardiac, Desideratum, Economy, Nursing Intervention.

INTRODUCTION

Ensuring good heart health is crucial for general well-being. It carries oxygen to working muscles, removes harmful substances from the body, and carries nutrient-rich blood throughout the body.^[1] Heart disease and heart attacks can affect people of any age, but anyone can lessen their chances of having one by leading a healthy lifestyle. Among the most common medical problems and killers in India, myocardial infarction has become a national epidemic.^[2] When it comes to helping patients who are otherwise doing well with their coronary heart disease recover, there are two more options: cardiac rehabilitation and secondary prevention.^[3]

Heart disease and stroke are the leading causes of death in the circulatory system, killing 32% of the global population.^[4] Estimates of the frequency of coronary heart disease in urban regions of India have ranged from 1% to 13.2% and in rural areas from 1.6% to 7.4% during the last several decades. Adults in both urban and rural India are disproportionately affected by myocardial infarction (MI), a leading cause of death and disability in western cultures.^[5] MI often strikes young people. Concerning, although 14% of all estimated MI deaths occur in high-income nations occur in the 45–

59 age group in India. According to multiple studies that focused on these causes of death, cardiovascular illnesses are responsible for around 40% of deaths in urban regions like Chennai and 30% of deaths in rural areas like Andhra Pradesh.^[6]

Reducing the risk of getting heart disease is possible through changes in lifestyle. Inadequate physical activity, unhealthy eating habits, and smoking are some of the risk factors that may account for half of all early deaths.^[8,9] People who exercise often or are really athletic typically have lower heart rates since their hearts are in better shape and don't have to work as hard.^[10] After a myocardial infarction (MI), one's way of life, self-perception, and healthcare utilization may all take a hit. The impact of war as a past event on the perception of sickness by patients' post-MI was substantial.^[11]

Cardiac rehabilitation can help patients who have suffered an acute myocardial infarction (AMI), however the optimal method is not yet known.^[12] MI is useful Indians have a higher prevalence of cardiovascular disease due to co morbidities and a lack of education. Health education helps patients comprehend and change their lifestyle, even while little is known about their experiences.^[13] Looking at the experiences of coronary heart disease patients with health education and risk communication through a meta-analysis of forty studies.^[14] Uncertainty, worry, and disengagement resulted from poorly conveyed information about the possibility of modifying one's lifestyle to lower future risk. For the purpose of informing worldwide practise, we examine suggestions for health education and risk communication.^[15]

In order to improve the quality of life for patients recovering from a myocardial infarction, the researcher felt compelled to investigate specific qualitative needs. The purpose of this research was to explore the effectiveness of cardiac nursing interventions in assisting myocardial infarction survivors to improve their quality of life and alter their lifestyles.

MATERIALS AND METHODS

The research methodology employed for this study was qualitative phenomenological research design. For data collection, 10 Post MI Patients before and after cardiac Nursing (rehabilitation) interventions were deployed employing purposive sampling Technique. The research was conducted in a tertiary hospital located in Chennai, especially in the cardiac department. The study had specific conditions that needed to be fulfilled: a) Myocardial Infarction patients aged 30 years and above; b) Patients with hypertension and diabetes mellitus are included; c) Patients who can use android phone with internet; d) Patients with Myocardial Infarction who are on medical management without any complication; and e) Clinically stable with an ejection fraction of > 35%.

DATA COLLECTION PROCEDURE

Data was collected from the participants after obtaining the proper permissions from the authorities of the institution. Permission from the ethics committee obtained vide ref no: EC/NEW/INST/2021/1618 prior the study process. The interview schedule and the process of the study were validated by the experts of the fields of medicine, cardiology and nursing.

A semi-structured interview schedule was used for the in-depth interviews. Each participant had 15 to 20 minutes to gather data with the interview schedule. The

subjects were received the cardiac nurse interventions for 20–30 minutes following the data collection. Following three months, post-intervention in-depth interview was conducted, and the intervention group was reaffirmed according to the interventions that were taught to them during the first month. Thematic content analysis was used to analyze the data, extracting codes, subthemes, and themes from the post-myocardial infarction patients' data by analyzing the transcription verbatim.

RESULTS & DISCUSSION

The five one to one interview before the cardiac nursing interventions and the five interviews after (post) intervention were conducted based on the lifestyle modifications, quality of life and medication adherence among post myocardial infarction patients. It came out with the following themes and sub themes. The pre intervention themes included were **Desideratum, Futuristic outlook, New Habits, Supportive concerns, Economical deportation and Psychological Inconvenience**. The post intervention themes included were **Wellness at Hospital, Family, Mental well -being, Getting out of life alive, Physical health, New Practices, and Impact of interventions**.

Pre -Intervention:

Theme 1: Desideratum

Sub Theme 1 - Physical Need: The majority of individuals reacted to their demands by getting too little sleep and eating too much. The majority of them struggled with both eating and sleeping. In addition, one of them said that he hoped to regain the strength and health he had before his illness. Even fewer of them wanted to improve his level of living. All of the participants dwelt on the difficulties of obtaining adequate nutrition. This might have an impact on their entire health and lifestyle. Some claimed that the meal does not satisfy them, while others claimed that they do not want to eat. Aside from that, there were handfuls that have a strong hunger.

Sub Theme 2 - Transportation: Transportation was one of the most difficult chores for some people since the hospital was distant from their house. It was both costly and tiring.

Theme 2: Futuristic Outlook

Sub Theme 1 - Uncertainty: The majority of them were concerned about their future and their families. They were unsure about many aspects of their future lives. Some people do not expect to live a regular life, while others were unaware of the consequences of leaving the hospital. Some people were too shocked to make decisions.

Sub Theme 2 - Hope: Few people responded well to the treatment and their lives. These people had some hope for recovery. Some assume that their level of fulfilment would improve with time.

Theme 3: New Habits

Sub Theme 1 - Smoking: The majority of them had either stopped smoking or never smoked, with the former being more common owing to their present condition. In fact, they advised individuals to quit smoking totally.

Sub Theme 2- Dietary Habits: The majority of the individuals were aware of the need of consuming a healthy diet. Some people associate a healthy diet with vegetables, while others associate it with fruits. Some people also advised substituting ragi for rice. This obviously demonstrated how conscious they were during their eating habits. One of them consumed food from a neighbouring restaurant, but he is cautious about eating fermented rice cake, which they feel that it will not hurt their bodies.

Sub Theme 3- Workout: Some people advised doing activities to be healthy. One of them even stated that he goes for a one-hour vigorous walk.

Sub Theme 4- Alcohol Consumption: They all strongly advocated for not drinking alcohol and recommended future patients to do the same.

Theme 4: Supportive Concerns

Sub Theme 1 -Family: While family works well for some, its drawbacks were evident in other remarks. The former emerged in terms of assistance. This assistance may aid the patient's recovery. However, these were concerns and issues for some of them. This was because of the reason that males handled the majority of the responsibilities and decision making in a patriarchal society, making it harder for the family to move on if they were unsuited.

Sub Theme 2- Hospital: The majority of them stated that they follow the physicians' orders and take their medications correctly. However, some people had a tendency to forget.

Theme 5: Economical Deportation

Sub Theme 1 -Job: They were all unable to work due to the ailment. Because they were unable to do work, their income had ceased. There was a person whose wife formerly worked irregularly due to the Husband's disease condition. The majority of them wish to work but unable to do so owing to constraints in their physical condition. The only reason for this was the increased costs associated with their health, as well as the need to support their family.

Sub Theme 2- Financial: Most participants mentioned their income, which had increased. Their medical and family costs were jeopardized as a result of this. For some, a steady pay check was essential, and they need to find work. The majority of respondents were financially disadvantaged, and their situation had put their lives in peril. They can't afford a private or multispecialty hospital, so they had all gone to this government hospital. Furthermore, they were willing to undertake any type of employment to help cover the costs of their therapy.

Theme 6: Psychological Inconvenience

Sub Theme 1 - Stress: Some of them were stressed out because of their financial status, therapy, family, and so on. This might aggravate the patient's condition. Some attribute it to their stress and anxiety as a result of their disease.

Post Intervention:

Theme 1: Wellness At Hospital

Sub Theme 1 - Treatment: Most of the individuals believed that the hospital's therapy was the finest and most practicable because it was free. They were satisfied with the care provided to them at the hospital.

Sub Theme 2 -Instructions: Almost majority of the participants were taking physicians' and other experts advise. They took medications on a daily basis as a result of medication diary followed by them.

Theme 2: Futuristic Goals

Sub Theme 1 - Future: One of them mentioned that he wanted to establish a garden and rely on it for his daily food needs. The other two people who responded to this claimed they wish to get good health again.

Sub Theme 2- Family: Most of them were hopeful enough to say he would be pleased with his family and only few others were concerned about the family's financial situation.

Theme 3: Mental Well Being

Sub Theme 1 - Stress: Two of them stated that they were not stressed at all. The explanation might be because they had faith in the treatment.

Sub Theme 2- Hope: One individual felt that everything would pass and that he recovered quickly after following the cardiac Nursing Intervention.

Sub Theme 3- Fear: Some people were terrified of the future or of anything else. Others who were afraid in the beginning are no longer afraid after following the Nursing intervention.

Theme 4: Getting Out Of Life Alive

Sub Theme 1 - Needs: Although everyone's requirements are different, it's clear that everyone wanted to grow better. However, one of them stated that he was unable to eat properly and so need that.

Sub Theme 2- Sleep: The majority of respondents stated that they had sleep quite well. However, one responder was dissatisfied with his sleep.

Theme 5: Physical Health

Sub Theme 1 - Less physical labour: The majority of them can only accomplish jobs that required little effort and little physical labour. They were aware that failing to do so will have a negative impact on their health.

Sub Theme 2- Physical Activity: They all agree that they should engaged in some form of exercise or activity that they felt would help their body. Most of them answered by recommending a one-hour brisk walk, as suggested by others.

Theme 6 : New Practices

Sub Theme 1 - Restraining: All responders were certain that they should not smoke or use alcohol at any stage of their illness. They were well aware that such consumption might compromise their immunity.

Sub Theme 2- Dietary Habits: The majority of participants were aware that eating a healthy diet was vital. Some argued that a healthy diet should consist mostly of vegetables, although it can also contain fruits.

Theme 7: Impact Of Interventions

Sub Theme 1 - Experience Of Intervention

The video assisted teaching and counseling sessions were organized thoughtfully. Each participant was provided with individualized guidance during these sessions, aimed at instilling effective lifestyle modification and stress relieving strategies to enhance their physical and mental well-being. These sessions not only acknowledged the physical challenges the respondents faced but also sought to empower them with ways to navigate their journey more effectively with cardiac exercises.

“I used to do the exercises taught by you and it helps me to regain myself and nowadays I am getting a better sleep”

During these sessions, the importance of holistic well-being was emphasized, shedding light on how lifestyle modifications and medication adherence were deeply intertwined with their quality of life. Heart Health Literacy module on Lifestyle Modification and medication diary for Post Myocardial Infarction patients were introduced to foster a more resilient mindset, helping the respondents better manage the emotional rollercoaster that the disease brought into their lives.

Sub Theme 2- Impact of follow up

Many reported that their physical health had notably improved, and they continued to incorporate the strategies learned during the sessions into their daily lives. The impact of these sessions extended beyond the participants themselves. Some felt compelled to share their insights with their family members and relatives, leading them also engaging in these positive lifestyle modification practices as a preventive measure.

Collectively, the interventions sparked a shift towards a more positive outlook. A renewed sense of hope emerged, illuminating their path forward with the belief that their dream of leading a better life.

“I am stressed out of what to do further in life but the counseling sessions conducted by you and the follow up sessions helped me a lot in getting rid of my ailment”

“The medication diary and the reminder helped me in taking my medications on time which in turn helps in my faster recovery”

It was consistent with the study findings among 10 post MI Patients which stated that Four themes and ten sub-themes were emerged as “changes in the quality of life” that included (a) negative physical outcomes, (b) mental effects, (c) social support, (d) adopting healthy behaviours, (e) increase or decrease in self-efficiency, (f) previous experience, and (g) developing future behaviours , “bodily perceptions and medical care” which evolved (a) medical care: saving or terminating life?, (b) a new message from the heart , and “returning to spirituality against death” from (a) spirituality as a guiding principle, (b) accepting death as an eventual destiny; and denial.^[16]

A study among 25 participants after post myocardial infarction showed up with the themes of i) anxiety, uncertainty and inability to determine cause of symptoms, (ii) fear of experiencing further myocardial infarction and (iii) insufficient opportunity to validate self-construction of illness.^[17]

CONCLUSION

The results of the study revealed that most of the individuals were extremely worried of the family and the financial crisis. Most of them had a major concern of lack of sleep and dietary habits. The cardiac nursing intervention proved to have a major impact on the lifestyle modification and reduced their stress level enhancing their sleep. Acute myocardial infarction diagnosis, management, and therapy crucial for patients. The nurses caring for patients directly, they can see issues early and proper counselling and guidance will enhance the quality of life of the patients during post myocardial infarction

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