



Myocardial Infarction Discharge Planning: Nurses, Approaches

Saeeda Alsadeg Mohammed Kaggy¹, Kaltoum Ibrahim Yousif², Shamia Abdel Hafeze Ali³, Faiza Sabri Ahmed⁴

¹Department of Medical Surgical Nursing, College of Nursing Sciences, University of Bahri, Khartoum, Sudan, ²Department of Medical Surgical Nursing, Faculty of Nursing Sciences, Al Mughtaribeen University, Khartoum, Sudan, ³Chief Nurse of Bronchoscopy Laboratory, Alshaab Teaching Hospital, Khartoum, Sudan, ⁴Department of Nutrition, College of Nursing Sciences, University of Bahri, Khartoum, Sudan

Abstract

Background: Discharge planning is still become a problem for health services in hospital. Hospital discharge is a complex and challenging process for healthcare professionals, patients, and their family. Providing suitable health information is an important part of disease prevention and health promotion.

Aim: This study aimed to assess nurses, approaches regarding discharge planning for patients with myocardial infarction (MI).

Methods: This was a descriptive cross-sectional hospital-based. A total of 60 nurses were selected using convenient sampling method; data were collected using interview questionnaire and analyzed by a descriptive statistics using frequency and percentages through Statistical Package for the Social Sciences.

Results: Ninety-six point seven of nurses educated patients about signs and symptoms and complication of MI, 90% of nurses gave nutritional counseling, 40% of nurses counsel MI patients about sports, 43.3% of nurses informed patients' that, in case of dose missing, they should take the dose whenever they remember.

Conclusion: Nurses had acceptable knowledge about discharge planning for patient with MI. Overall, nurses knowledge was 50.43% which considered acceptable.

Keywords: Approaches, discharge planning, myocardial infarction, nurses

INTRODUCTION

Myocardial infarction (MI) or heart attack is one of the most common causes of death in developing nations. According to the World Health Organization estimates, 17 million people died from cardio vascular diseases each year. A study carried out in 2009 for cardiovascular diseases contributed to one-third of global deaths of all cardiovascular diseases deaths.^[1] Cardiovascular diseases caused nearly 1 million deaths in

sub-Saharan Africa, constituting 38.3% of non-communicable disease deaths, and 11.3% of deaths from all causes in sub-Saharan Africa contributed 5.5% of global cardiovascular disease (CVD) deaths.^[2]

In Sudan, MI is one of the most common causes of death, out of the 100 Sudanese patients presented with acute MI, males were about twice the females (69% and 31%), respectively. With a mortality rate of approximately 25%, in addition, more than 30% of sudden deaths occur within 1 h of the onset of symptoms.^[3]

The essential components for preventing re-infarction are intake of correct drugs, exercises, diet, and a positive attitude toward health. Re-infarction rate is higher among those who continued to ignore drugs as well as those who did not change their life style.^[4]

Hospital discharge is a complex and challenging process for healthcare professionals, patients, and their family and it was

Date of Submission: 17-02-2022

Date of Revision: 28-02-2022

Date of Acceptance: 06-02-2022

Access this article online

Website: <http://innovationalpublishers.com/Journal/ijns>

ISSN No: 2454-4906

DOI: 10.31690/ijns.2022.v07i02.005

Address for Correspondence:

Kalthoum Ibrahim Yousif, Department of Medical Surgical Nursing, Faculty of Nursing Sciences, Khartoum, Sudan. E-mail: kalthoumyousif@gmail.com

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution Noncommercial Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms

widely documented throughout the literature search that there are constant pressures to discharge patients from the ward as quickly as possible.^[5]

The discharge planning focused on providing health education to patients covering nutrition, activities or training, medicine, and special instructions in signs and symptoms of the disease. Field studies have found that a discharge plan can still become a problem for health services in hospital.^[6] Bad discharge planning could cause serious consequences for the patient.^[7] Discharge planning is viewed as the main method for ensuring that patient's needs post-discharge will be met to enable them to function at optimal levels once they return home. In countries like Sudan, people are unaware of the benefits of discharge planning as nurse is an important part of the multidisciplinary team's discharge planning, which can play a major role in educating patients about the need for taking drugs as well as to follow the correct dietary and exercise prescriptions so as it can reduce re-visits for patients.^[3]

The lack of a plan for hospital discharge planning process can make patients, family members, or caregivers feel confused and insecure about the future. In practice, no more than 24 h before the appointed date, the medical team assesses the patient clinically and prepares a discharge summary. The competent member of the nursing staff documents that the patient has met the clinical and organizational criteria within 1 h before discharge.^[8]

Nurses are primarily professional responsible for discharge planning and teaching; therefore, nurses are the appropriate healthcare providers to take on this role due to their availability to patients day in and day out, awareness of their needs, and their ability to gather relevant information from patients due to the trust relationships they form together.^[9]

Discharge planning is viewed as the main method for ensuring that patient's needs post-discharge will be met to enable them to function at optimal levels once they return home. In countries like Sudan, people are unaware of the benefits of discharge planning. As nurse is an important part of the multidisciplinary team's discharge planning, which can play a major role in educating patients about the need for taking drugs as well as to follow the correct dietary and exercise prescriptions so as it can reduce re-visits for patients.^[10]

MATERIALS AND METHODS

Descriptive cross-sectional hospital-based study was carried out in Omdurman Teaching Hospital which is situated in Omdurman locality. A convenience sampling was used to for nurses working in cardiac units. The total number of participants was 60 nurses. Data were collected through structure interview questionnaire develop and modified by researcher based on literature review and approved by the research ethical committee in Bahri University. It contains 16 questions and consists of the following two parts: Part one was concerned with nurses' personal data and part two was intended to assess nurses' approaches about discharge planning, for

example, Life style changes, medication, call for emergency, and follow-up with cardiologist in the medical outpatient clinic. The results were evaluated based on the percentage in the questionnaire. Knowledge classified in to three categories as good knowledge (75–100%), moderate knowledge from (74% to 50%), and poor knowledge (<50%).

Statistical analysis

Data were coded and entered using the Statistical Package for Social Sciences and a descriptive statistic was interpreted in frequency and percent. Final data were performed in terms of tables and figures.

Ethical consideration

Ethical approval was obtained from the research committee, university of Bahri Research committee and from manager in Alshaab Teaching Hospital. Verbal permission was obtained from respondents after aim and objectives of the study were explained to ensure that respondents have a clear understanding of the study before they volunteered to participate. They were informed that they have the choice to either participate or refuse and can discontinue participation at any time from the study if they so wish.

RESULTS

As it is shown in Table 1, 56.6% of the staff are above 30 years of age and their qualification was bachelorette degree as a higher score.

According to Table 2, none of the participants were able to approach the patient about the cardiac symptoms when experience pain and 49% of them as well fail to identify nosea and vomiting as serious symptoms of mycardiac infarction condition.

In Table 3, it was noticed that 95% of the study sample fail to instruct patients about how to maintain a healthy weight. Moreover, 56.7% as well fail to manage patients with stress, which is an alarm indicator for a nurse working in a cardiac unit.

Table 1: Distribution of the study sample according to personal data (n=60)

Variable	Frequency	Percent
Age		
20–30 years	12	34.1
Above 30 years	48	65.9
Total	60	100
Gender		
Male	7	16.7
Female	53	83.3
Total	60	100
Qualification		
Bachelor	34	56.6
Higher diploma	2	3.3
Master	24	40
Total	60	100
Training courses		
Attending training courses about discharge planning	None	100

Table 4 shows that 83.7% of the participants did not tell the patients not to take medication without doctor prescription. Although It is important to educate the patient about caring of their health, but the nurses expect some patients might miss or ignore the instructions. In this regard, 86.7% of the study sample did not tell the patients for blood pressure measurement at least twice a day which is very important for a cardiac patient.

As shown above in Table 5, 45% of the study sample miss the important point of reminding the patients for the follow-up with their cardiologist after discharge. Although it is known in the nursing practice, discharge planning interpretation to patient is the responsibility of the nurse.

Overall, Knowledge of the Study sample participating in the study (n=60)

Overall, knowledge 50.43%

Table 2: Knowledge of the study sample about approaches to discharge planning regarding emergency symptoms (n=60)

Variables	Yes (%)	No (%)	Total (%)
Call local emergency for any of the following symptoms			
Squeezing	0	60 (100)	60 (100)
Shortness of breathing	43 (71.7)	17 (28.3)	60 (100)
Nausea or vomiting	11 (18.3)	49 (81.7)	60 (100)
Discomfort or pain in back, neck, jaw, and stomach	54 (90)	6 (10)	60 (100)

Table 3: Knowledge of the study sample about approaches to discharge planning regarding life style (n=60)

Variables	Yes (%)	No (%)	Total (%)
Life style changes			
Follow – a heart healthy diet	52 (86.7)	8 (13.3)	60 (100)
Limit sodium	40 (66.7)	20 (33.3)	60 (100)
Do not smoke	58 (96.7)	2 (3.3)	60 (100)
Exercise as direct	30 (50)	30 (50)	60 (100)
Maintain a healthy weight	3 (5)	57 (95)	60 (100)
Manage stress	26 (43.3)	34 (56.7)	60 (100)

Table 4: Knowledge of the study sample about approaches to discharge planning regarding medication and blood pressure checking (n=60)

Variables	Yes (%)	No (%)	Total (%)
Medication			
Taking medication as direct	50 (83.3)	10 (16.7)	60 (100)
Do not take certain medications without consultation	10 (16.7)	50 (83.7)	60 (100)
Check blood pressure at home			
Follow the directions that come with monitor	53 (88.3)	7 (57.7)	60 (100)
Take at least two readings	8 (13.3)	52 (86.7)	60 (100)
Take blood pressure at least 2 times each day at the same time	44 (73.3)	16 (26.7)	60 (100)

DISCUSSION

Hospital discharge planning is an important educational method to direct and prepare patients for continued care at home. In practice, this process would be carried out mainly before 24 h of discharge by the competent nurse and the treatment team as Mauro said.^[8]

Hospital discharge is a complex and challenging process for healthcare professionals and patients. Good practice in discharge planning has long been recognized as the cornerstone of a successful transition of an individual from a hospital environment to their home.^[11]

From this study results according to the demographic data, it was clearly observed that, majority of participants were females. This might indicated that females are predominant in nursing especially in critical nursing services area. Regarding the educational level of the participants, 34 of them were bachelor degree of nursing and 24 of them were master degree holders. Nurses with diploma represent only 2% of the participants [Table 1].

In this study, nurses had educated patients about warning symptoms of MI during emergency situations. This indicated that nurses had experience needed to provide special instructions about symptoms of the disease, although they all fail to educate patient about when he feels a squeezed pressure in the chest. As well nurses also represents almost 81.7% of them fail to remind, the patients about nausea and vomiting are an emergency symptoms [Table 2].

With regard to life style changes when all patients questioned by the nurses for this issue, they did very well in most of the variables except 50% of them doing their exercise alone without instructions and 95% of them fail to maintain their weight per instruction [Table 3]. These findings were supported by Olga^[10] who mentioned that level of knowledge is higher among staff nurses in this regard.

Patients will declare ready for discharge if they are well prepared to be aware of their symptom of harm. Results of this study also documented that majority of nurses provided special instructions for patient to follow – a heart healthy diet. This might suggested that participant had back ground about nutritional counseling, as diet therapy is one of courses in nursing curricula it play a key role in providing nurses with sufficient information to performing nutritional counseling based on the given standard, this contributed significantly toward motivation and the spirit to heal. Patients are often

Table 5: Knowledge of the study sample about approaches to discharge planning follow-up with the cardiologist (n=60)

Variables	Yes (%)	No (%)	Total (%)
Follow-up with cardiologist			
After 14 days	33 (55)	27 (45)	60 (100)
As directed	60 (100)	0 (0)	60 (100)

confused about what to eat after they have an MI, this was the first thing that patients will consider when they arrive home after an MI. Dietary recommendations after an MI should be individualized, because people have different baseline diets and different preferences. This is not in consistent with study done in 2006), which implies that nutritional counseling is provided by nutritionists.^[12]

The result of this study shows most of the nurses' advice patients about smoking as it was the common risk factor for MI [Table 3]. Providing suitable health information is an important part of the disease prevention and health promotion.^[3] Hassan (2015) stated that teaching the patients and their families are the duty of the nurses as a modern approach at the front of patient care. This goes in the same line with the study done by Olga^[10] who reported that most of the nurses educated patients about importance of smoking cession after cardiac event.

The present study implies that 50% of nurses' advices the patient about the importance of exercise, physical activity can reduce the risk of CVD. The American Heart Association recommends at least 30 min of exercise daily, or at least 3–4 times per week, for patient who have had a heart attack. It was highlighted by a study done By Kraft *et al.*^[13] that lack of exercise has been linked to 7–12% of cases. In this regard, it was supported by a study done by Delgado in 2006^[12] support this results; he stated that most of the nurses informed patients about importance of regular exercises as a preventative and management method.

Home medications are the most problematic when patients are sent home. The present study reported that majority of nurses instruct the patient to take medication according to doctor directions. One of the reasons that might explain the result of this study was that MI is a life-threatening condition that requires adherence to pharmacologic management. The previous research results indicated that nurses in advanced care rooms perceived that medication information was the first priority for patient information needs and after being discharged from the hospital, patients are required to be independent regarding medication.^[14] The results of this study were supported by a previous study^[15] documented that majority of nurses educate patients about importance of adhering to medication.

Home medications are the most problematic when patients are sent home. The present study reported that only few of nurses informed patients that they should avoid taking certain medications without consultation [Table 4]. The present study findings were in contrast to the result which mentioned by Lee and Emmerson^[16] that half of the nurse's educated patients about importance of drug adherence for MI patients.

With regard to the blood pressure checking, most of patients follow the directions from the nurses that come with the monitor except 86.7% of them take at least two readings per day [Table 4].

This study revealed that majority of nurses educate MI patient about the importance of the regular visit to the cardiologist,

which was reflected in Table 5 that 60% follow the instructions as directed. This may indicate that participants had background about regular visit that is important for patients to observe their current health situation and to receive regular advises and instructions from the health care providers. This result agreed with Morris^[11] who reported that majority of nurses considered that regular checkup for MI patient is important for proper management for their disease.

CONCLUSION

In the light of the study findings, it was concluded that nurses had acceptable knowledge about discharge planning approaches for patient with MI. Their overall knowledge was 50.43% as stated above.

ACKNOWLEDGMENT

We are indebted to all the nurses who contributed to this study and availed their time and cooperated patiently with the researcher's requirements. The researchers also thank whoever contributed to accomplish this study. The authors declare no financial or other conflicts of interest in relationship with a company/organization or commercial identities.

FUNDING AND CONFLICTS OF INTEREST

The authors declare no funding and no conflicts of interest regarding the publication of this paper.

REFERENCES

1. Agewall S, Beltrame JF, Reynolds HR, Niessner A, Rosano G, Caforio AL, *et al.* ESC working group position paper on myocardial infarction with non-obstructive coronary arteries. *Eur Heart J* 2017;38:143-53.
2. Alpert JS, Thygesen K, Antman E, Bassand JP. Myocardial infarction redefined a consensus document of the joint European Society of Cardiology/American College of Cardiology Committee for the redefinition of myocardial infarction. *J Am Coll Cardiol* 2016;36:959-69.
3. Fleih HA. Assessment of Nurses Knowledge about Patient Safety after Cardiac Event in Ibn Al Biter Specialist Center Cardiac Surgery, Baghdad, Iraq; 2015.
4. Berry DL, Cunningham T, Eisenberg S, Wickline M, Hammer M, Berg C. Improving patient knowledge of discharge medications in an oncology setting. *Clin J Oncol Nurs* 2014;18:35-7.
5. Celermajer DS, Chow CK, Marijon E, Anstey NM, Woo KS. Cardiovascular disease in the developing world: Prevalences, patterns, and the potential of early disease detection. *J Am Coll Cardiol* 2016;60:1207-16.
6. Neumar RW, Shuster M, Callaway CW, Gent LM, Atkins DL, Bhanji F, *et al.* Part 1: executive summary: american heart association guidelines update for cardiopulmonary resuscitation and emergency cardiovascular care. *Circulation* 2015;132 18 Suppl 2:S315-67.
7. Valensi P, Lorgis L, Cottin Y. Prevalence, incidence, predictive factors and prognosis of silent myocardial infarction: A review of the literature. *Arch Cardiovasc Dis* 2017;104:178-88.
8. Mennuni M, Gulizia MM, Alunni G, Amico AF, Bovenzi FM, Caporale R, *et al.* ANMCO position paper: Hospital discharge planning: Recommendations and standards. *Eur Heart J Suppl* 2017;19 Suppl D:D244-55.
9. Lindo J, Stennet R, Stephenson-Wilson K, Barrett KA, Bunnaman D. An audit of nursing documentation at three public hospitals in Jamaica. *J Nurs Scholarsh* 2016;48:508-16.

10. Kadda O. The Role of Nursing Education after Cardiac Event School of Medicine. Greece: University of Athens; 2018.
11. Morris J. Registered nurses' perceptions of the discharge planning process for adult patients in an acute hospital. *J Nurs Educ Pract* 2012;2:28.
12. Delgado-Passler P, McCaffrey R. The influences of postdischarge management by nurse practitioners on hospital readmission for heart failure. *J Am Acad Nurse Pract* 2006;18:154-60.
13. Kraft S, Wise H, Jacques PF, Burik J. Discharge planning simulation: training the interprofessional team for the future workplace. *J Allied Health* 2013;42:175-81.
14. Huriani H Myocardial infarction patients' learning needs: Perceptions of patients, family members and nurses. *Int J Nurs Sci* 2019;6:294-9.
15. Seraji M, Rakhshani F. Evaluation of the effect of educating self-care behavior of heart failure patients on economy of health. *Int J Med Res Health Sci* 2016;5:279-84.
16. Lees L, Emmerson K. Identifying discharge practice training needs. *Nurs Standard* 2006;20:47-51.

How to cite this article: Kagygy SAM, Yousif KI, Ali SAH, Ahmed FS. Myocardial Infarction Discharge Planning: Nurses, Approaches. *Indian J of Nurs Sci.* 2022;7(2):48-52.