KNOWLEDGE, ATTITUDE AND PRACTICES OF NURSES REGARDING HOSPITAL DISCHARGE EDUCATION OF CARDIOVASCULAR PATIENTS AT FAISALABAD INSTITUTE OF CARDIOLOGY.

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Abstract:

Background: Cardiovascular disease is a global public health problem contributing to30% of global mortality and 10% of global disease burden. World Health Organization (WHO) estimates that in the low-income countries the number of deaths due to cardiovascular disease (CVD) is on steady rise Eighty percent of the deaths due to CVD and 86% of the global burden of CVD are in the developing countries including Pakistan. Pakistani population has one of the highest risks of coronary heart disease (CHD) in the world. In Pakistan, 30 to 40 % of all deaths are due to cardiovascular diseases (CVD).

Objective: To assess the nurses' knowledge about cardiovascular diseases and risk factors. To assess the nurses' role and practices to educate the patients after cardiac event before hospital discharge.

Methodology: This research was descriptive and cross sectional in nature which is a quantitative study design. Fifty (50) out of all nurses from Faisalabad Institute of Cardiology Faisalabad were selected as the sample size.

Results: It was discovered that the majority of nurses, 52.0 percent, strongly feel that discharge planning is critical in cardiac wards. It was also discovered that the majority of nurses agreed that staff nurses should provide discharge education to patients, with 58percent agreeing.

Conclusion: There is need to educate nurses about hospital discharge education of cardiovascular patients at FIC.

Keywords: Cardiovascular, Knowledge, Attitude, Practices, Hospital Discharge

I.   INTRODUCTION

Heart is a pumping organ which supplies blood to whole body including itself. When the blood supply to heart muscles is interrupted by any cause, function of the heart muscle altered. And if it continue for long time can cause necrosis and further complications. The major risk factors are tobacco use, alcohol use, high blood pressure, high cholesterol, obesity, diabetes, physical inactivity, stress and unhealthy diet. "The more risk factors you have the greater is the likelihood that you will suffer heart disease, unless you take action to modify your risk factors and work to prevent them compromising your health (Van et al., 2017). Heart attacks and strokes are preventable. We have witnessed tremendous strides in their prevention and management due to public health programs, and medical advances in drug treatment, technology and techniques. But

by no means has everyone benefited from this cutting edge of medical science (Kang et al., 2018).

Patient education is a key component in many self-management interventions, including those for patients with coronary heart disease (CHD). Nurses can play an important role in providing information to patients after cardiac events. The main goal of providing information is to prompt patients participate in their therapeutic treatment regimen to such an extent that they can achieve living almost a normal life. The nurses can also detect, diagnosis and monitor the psychological distress, which commonly and frequently expressed by patients after admission (Hojskov et al., 2019). The level of anxiety and depression that may persist for long, thus affects the outcome of cardiac disease. This information improves patient knowledge of their illness and awareness of behavioral changes to prevent a new event and readmission to hospital. It is anticipated that the findings of current study will be helpful to exert a beneficial effect on patients' quality of life and decreased cardiac risk factors and batter patient's outcome (Van Spall et al., 2017).

Objectives of the Study

- To assess the nurses' knowledge about cardiovascular diseases and risk factors.
- To assess the nurses' role and practices to educate the patients after cardiac event before hospital discharge.

Research Questions

Q1: Does the nurses' knowledge and practices are inadequate while educating cardiac patients before hospital discharge?

Hypothesis of the Study

H1: Nurses' knowledge and practices are inadequate while educating cardiac patients before hospital discharge.

II.   REVIEW OF LITERATURE

Awoke, Baptiste et al. 2019 conducted a quasi-experimental pre-test post- test study to evaluate the impact of nurse-led heart failure patient education on knowledge, self-care behaviors, and all causes that prompt hospital readmission Findings suggested the importance of developing patient education programs that are focused on improving knowledge and self-care behaviors for heart failure patients..(Awoke, Baptiste et al. 2019)

Victor, Sommer et al. 2019 a review article is written. The purpose of this review article is to identify and highlight the roles of nurse in decreasing the burden of cardiovascular mortality and morbidity. The critical barriers to nurse roles are also discussed. A trained nurse could effectively deal with CVS emergencies including rhythm recognition, early defibrillation and emergency medication administration. The nurse role as educator could meet the needs of patients through education, support, supervision and reinforcement. Need for specialized knowledge, shortage of nurses, work overload and role confusion are barriers to nurse roles.(Victor, Sommer et al. 2019)

Baeez, Mohammed et al. 2019 a quasi-study was conducted to evaluate the effectiveness of a nursing education program on the nurse's practice toward cardiac rehabilitation in patients with heart attack. The structured teaching program for imparting knowledge about cardiac rehabilitation after diagnosis of the disease was developed based on a literature review and expert opinion. Post-test assessment performed for both the study and control group after applying for an education program. (Baeez, Mohammed et al. 2019)

Svavarsdóttir, Sigurðardóttir et al. 2016 a qualitative study was conducted to investigate health professionals' views on the knowledge and skills necessary in conducting high-quality patient education for adults recently diagnosed with coronary heart disease. Sound updated theoretical and clinical knowledge, along with advanced communication skills, was considered essential for patient education. Evidence-based patient education requires knowledgeable health professionals with advanced communication skills and pedagogical competences that enable them to motivate patients and provide effective patient centered lifestyle counseling.(Svavarsdóttir, Sigurðardóttir et al. 2016)

White, Garbez et al. 2013 conducted a prospective cohort study to determine if hospitalized heart failure patients educated with the teach-back method retain self-care educational information and whether it is associated with fewer hospital readmissions. The teach-back method is an effective method used to educate and assess learning. Patients educated longer retained significantly more information than did patients with briefer teaching. Future studies that include patients randomized to receive usual care or teach-back education to compare readmissions and knowledge acquisition would provide further comparison of teach-back effectiveness.(White, Garbez et al. 2013)

III. METHODOLOGY

This research was descriptive and cross sectional in nature which is a quantitative study design. This is primarily because a descriptive study is classically used to establish the prevalence or extent of some medical problem in a community (Nardi, 2018).

Fifty (50) out of all nurses from Faisalabad Institute of Cardiology Faisalabad were selected as the sample size. The research was to assess Knowledge, Attitude and Practices of nurses regarding hospital discharge education of cardiovascular patients at Faisalabad Institute of Cardiology Faisalabad which took the form of a prospective descriptive cross sectional study and thus the basic principles of research ethics were carefully adhered to and respected. However the following ethical issues received paramount consideration: Pre testing was done on thirty (25) respondents. After pre-testing some question were reformed, reconstructed and modified to enhance the workability of the schedules. The data of current research study was analyzed with the help of statistical software which known as SPSS version 21.0. Descriptive statistics i.e. Mean, Standard Deviation and Frequency Distributions were used for the description of trends in the data.

IV. RESULTS AND DISCUSSION

This research was quantitative & cross sectional; a self-administered questionnaire was the tool. The purpose of this study was to assess the nurses' knowledge about cardiovascular diseases and risk factors. This study also assesses the nurses' role and practices to educate the patients after cardiac event before hospital discharge.

Table 1

Gender wise Distribution of the respondents

Gender	Frequency	Percentage	Mean	S.D
Male	0	0	2.32	0.768
Female	50	100%		
Total	**50**	**100.0**		

Table 1 highlights the gender wise distribution of the respondents which shows that all the 100 percent respondents were females and the mean value was 2.32 and standard deviation was 0.768.

Demographic Details

Table 2

Age wise Distribution of the respondents

Age	Frequency	Percentage	Mean	S.D
21-25 Years	5	10.0%		
26-30 Years	28	56.0%		
31-35 Years	13	26.0%		
36-40 Years	4	8.0%		
Total	**50**	**100.0**		

Table 2 highlights the age wise distribution of the respondents which shows that majority of the respondents i.e. 56.0% were in between the age of 26-30 years, 26.0% were between the age group of 31-35 years, 10.0% were between 21-25 years of age and only 8.0% were between the age group of 36-40 years.

Table 3

Education wise Distribution of the respondents

Education	Frequency	Percentage	Mean	S.D
GNM	37	74.0%		
BSN	12	24.0%		
Others	1	2.0%		
Total	**50**	**100.0**		

Table 3 highlights the education wise distribution of the respondents which shows that majority of the respondents i.e. 74.0% were GNM, 24.0% were BSN and 2% were having other education.

Table 4

Total Work Experience of respondents

Experience	Frequency	Percentage	Mean	S.D
1 Year	3	6.0%		
1-2 Years	7	14.0%		
2-5 Years	18	36.0%		
5+ Years	22	44.0%		
Total	**50**	**100.0**		

Table 4 highlights the total work experience of the respondents which shows that majority of the respondents i.e. (44.0%) were having work experience of more than 5 years, 36.0% were having experience of 2-5 years, 14.0% were having experience of 1-2 years and only 6.0% were having experience of 1 year.

Table 5

Work Experience of respondents in Cardiac Unit

Experience	Frequency	Percentage	Mean	S.D
1 Year	3	8.0%		
1-2 Years	7	14.0%		
2-5 Years	18	40.0%		
5+ Years	22	38.0%		
Total	**50**	**100.0**		

Table 5 highlights the total work experience of the respondents in cardiac unit which shows that majority of the respondents i.e. (40.0%) were having work experience of 2-5 years in cardiac unit, 38.0% were having experience of more than 5 years, 14.0% were having experience of 1-2 years and only 8.0% were having experience of 1 year.

Nurses Knowledge

Table 6

Symptoms of a Heart Attack

Symptoms of Heart Attack	Frequency	Percentage
Dizziness, weakness, arm pain, pressure in the chest	7	14.0%
Heart palpitations, shortness of breath, weakness	8	16.0%
All of the Above	35	70.0%
Total	**50**	**100.0**

Table 6 highlights the respondents' knowledge about the symptoms of heart attack which shows that majority of the respondents said that the symptoms of heart attack include "Dizziness, weakness, arm pain, pressure in the chest, Heart palpitations, shortness of breath, weakness", while on the other hand 16.0% said that the symptoms of heart attack include "Heart palpitations, shortness of breath, weakness" and 14.0% said that the symptoms of heart attack include "Dizziness, weakness, arm pain, pressure in the chest".

Table 7

In Pakistan the CVD burden is increasing due to

In Pakistan the CVD burden is increasing due to	Frequency	Percentage
Excessive alcohol and tobacco use	2	4.0%
Poor diet and physical inactivity	4	8.0%
Psycho-social issues	3	6.0%
All of the Above	41	82.0%
Total	50	100.0%

Table 7 highlights the respondents' knowledge about the reasons behind increasing burden of CVD in Pakistan which shows that majority of the respondents i.e. 82.0% said that all of the above quoted reasons were behind increasing burden of CVD in Pakistan, while 8.0% said the poor diet and physical inactivity, 6.0% consider the psycho-social issues and 4.0% said that excessive alcohol and tobacco use are the reasons behind increase in the CVD burden in Pakistan.

Table 8

Association of significantly increased risk of stroke and total cardiovascular disease

Association of significantly increased risk of stroke and total cardiovascular disease	Frequency	Percentage
High salt intake	0	0%
High blood pressure	0	0%
High cholesterol	0	0%
All of the Above	50	100.0%
Total	50	100.0%

Table 8 highlights the respondents' knowledge about the association of significantly increased risk of stroke and total cardiovascular disease which shows that all the 100 percent respondents consider the all above quoted reasons behind this phenomena.

Table 9

Knowledge about normal level of serum cholesterol

Knowledge about normal level of serum cholesterol	Frequency	Percentage
Less than 200 mg/dl	48	96.0
200 and 239 mg/dl	2	4.0
Total	50	100.0%

Table 9 highlights the respondents' knowledge about the normal level of serum cholesterol which shows that majority of the respondents i.e. 96.0% consider that less than 200 mg/dl is the normal level of cholesterol and only 4% consider that the values between 200 and 239 mg/dl is the normal level of serum cholesterol.

Table 10

Knowledge about consumption of sodium per day suggested by the WHO

Consumption of sodium per day suggested by the WHO	Frequency	Percentage
2,000 mg (2 grams)	40	80.0%
3,000 mg (3 grams)	1	2.0%
4,000 mg (4 grams)	3	6.0%
I don't know	6	12.0%
Total	50	100.0%

Table 10 highlights the respondents' knowledge about consumption of sodium per day suggested by the WHO which shows that majority of the respondents i.e. 80.0% said that 2,000 mg (2grams) is the consumption of sodium per day suggested by the WHO, 12,0% said that they don't know, 6.0% said 4,000 mg (4 grams) and 2.0% said that 3,000 mg (3grams) was the consumption of sodium per day suggested by the WHO.

V.   DISCUSSION

This study found that there was a low level of nurses' knowledge and practices regarding Knowledge, Attitude and Practices of nurses regarding hospital discharge education of cardiovascular patients at Faisalabad Institute of Cardiology. It was found that majority of the nurses i.e. 52.0% were strongly agree that the discharge planning is very necessary in cardiac ward. It was also known that majority of the nurses were agree about the Staff Nurses should like to provide discharge education to patients with the percentage of 58.%. In this regard, in a study Mohammad et al., (2016) conducted a study on nurses' knowledge of DP for open-heart patients at three centres in Baghdad, Iraq. The study used a non-probability (purposive) sample of 52 nurses working in the surgical wards of cardiac hospitals. They were responsible for creating discharge plans for open-heart patients. The questionnaire consisted of three parts. The first part concerned socio-demographic characteristics. The second part covered nurses' knowledge of preparing DP for patients with open-heart surgery. The last part consisted of thirty questions, to which the responding nurses could answer "sure," "unknown" or "not sure." The questions were classified as nurses' knowledge of: (a) DP in general; (b) medication; (c) patients' follow-up; (d) patients' activities; (f) patients' nutrition; and (g) patients' problems. The nurses' knowledge level of DP was low in various domains, especially concerning patient follow-up.

In another study conducted by Paul (2017) it was revealed that cardiac nurses play a fundamental role in the educational process and can be the primary practitioners who teach and evaluate patients' self-care abilities, which include weight monitoring, sodium and fluid restrictions, physical activities, regular medication use, monitoring signs and symptoms of disease worsening, and early search for medical care. Cardiac nurses should strive to understand the barriers to patient adherence and self-care and learn strategies to educate patients to overcome those barriers. A discharge management program led by a cardiac nurse that incorporates the latest evidence, guidelines, and tools can substantially improve the level of care for patients with heart failure. This study found that there was not enough knowledge of nurses about provision of discharge education to patient is other personnel's (ward boy, weeper etc.) as 52% were strongly disagree about this fact.

A study conducted by Veronovici et al., (2014) described that patients and staff identified that patient education is essential. Standardized educational tools are appropriate as they can spare resources, but are only effective if used in conjunction with individualized education. This study found that majority of the nurses i.e. 58.% strongly agree and 42.0% agree that nurses should play the vital role in giving the discharge education to the patient in the cardiac ward.

VI.   CONCLUSION

This study used a quantitative study design that was descriptive and cross sectional in nature. Nurses' knowledge, attitudes, and practices regarding hospital discharge education of cardiovascular patients were found to be lacking at the Faisalabad Institute of Cardiology, according to this study. It was discovered that the majority of nurses, 52.0 percent, strongly feel that discharge planning is critical in cardiac wards. It was also discovered that the majority of nurses agreed that staff nurses should provide discharge education to patients, with 58percent agreeing.

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