INFORMATION NEEDS OF PATIENTS SUFFERING FROM ACUTE CORONARY SYNDROME (ACS) IN THE CONVALESCENT PERIOD

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ABSTRACT

Background: The success of treatment in Acute Coronary Syndrome (ACS) depends on the continuity of the care extended back home after discharge from the hospital. There exists a gap between information provided to the patient to the information which they expect at the time of discharge. The information needs assessment will help to sensitize the patient education and also will aid in enhancing the care at home.

Objective: This study was conducted to identify the information needs of patients suffering from acute coronary syndrome (ACS) prior to discharge from hospital.

Methods: A descriptive study was conducted in a tertiary care hospital in Navi Mumbai. 100 patients suffering from the first event of Acute Coronary Syndrome were included in the study by using purposive sampling method. Data were collected using the Modified Cardiac Patient Learning Needs Inventory (MCPLNI) and was analyzed using SPSS version 20.0 software.

The results: A total of 100 patients suffering from first event of ACS were interviewed to rate the pre-discharge information needs. The majority of the patients were from 51 – 60 years of age group and 78% were male. 42% of them educated up to high school. The analysis of the information needs revealed that the need for symptom management was rated as the most important need (x̅ = 21.56), followed by medication information (x̅ = 20.8) as well as etiology & risk factors (x̅ = 20.62).

Conclusion: It can be concluded that assessment of the information needs of the patients prior to giving discharge and providing a need based health education will help to have a positive change in the lifestyle of the patients and prevent further complications due to ACS.

INTRODUCTION

The burden of cardiovascular diseases is rising in India. (Reddy KS et al, 2005) CREATE Registry which provided world-wide data showed that India has the highest burden of Acute coronary syndrome. (Xavier D et al, 2008) Acute coronary syndrome (ACS) is an acute event of coronary artery disease manifesting as Acute myocardial infarction or unstable angina.

The advances in the diagnostics and therapies have significantly improved the survival of the patients. However, the care after discharge is equally important if there has to be a sustained success in alleviating the sufferings of patients.

Institute of Patient and family Centered Care (IPCC) believes in working with the patients and families in the planning, delivering and evaluating the health care. Provision of the patient and family centered care gives a better response in patient care, reducing the anxiety, improved rehabilitation and reduction in further events.

A very few health care settings in the city have a structured protocol for discharge planning. The patient to nurse ratio shows perpetual shortage of nurses providing direct health care to the patients. This leads to the inadequacy in the preparation of patients as well as the family members for the discharge. The instructions regarding the lifestyle modifications are

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inadequate and not emphasized adequately. Studies also suggest that the discharge planning lacks to focus on the individual needs and preferences of the patients and their family members. It leaves the patient and family in an unprepared and anxious state for the discharge. The willingness and the ability of the care providers to accommodate the needs and preferences determine the involvement of patients as well as families in the preparations for discharge. (Hesselink G et al, 2012) Thus, this study was aimed at identifying the information needs of the patients suffering from acute coronary syndrome (ACS) prior to their discharge.

MATERIAL AND METHODS

An approval for the study was obtained from the Institutional Ethics Committee. A Quantitative research approach and a descriptive survey design were used. The study was conducted in a tertiary care hospital of Navi Mumbai. 100 patients suffering from the first event of Acute Coronary Syndrome (AWMI, IWMI, STEMI, NSTEMI) and unstable angina and interviewed before their discharge. A purposive sampling method was used for sample selection. The patients who were willing to participate and gave an informed written consent were included in the study. A structured questionnaire which comprised of two sections; viz., the demographic data of the patients and the Modified Cardiac Patients’ Learning Needs Inventory (MCPLNI) was used for interviewing patients which was modified that used by Timmins F. (Timmins F, 2005) The reliability of the Cronbach’s alpha for the total questionnaire was found to be 0.919. The items Rated in Modified CPLNI included 34 items such as basic understanding about ACS (7 statements), etiological and risk factors (5 statements), lifestyle factors (2 statements), medication information (4 statements), dietary information (4 statements), physical activity (4 statements), symptom management (5 statements) and miscellaneous (3 statements).

RESULTS

Demographic data of the patients included in the study is given in the table 1.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (In Years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>41-50</td>
<td>20</td>
<td>20.0</td>
</tr>
<tr>
<td>51-60</td>
<td>39</td>
<td>39.0</td>
</tr>
<tr>
<td>61-70</td>
<td>33</td>
<td>33.0</td>
</tr>
<tr>
<td>71-80</td>
<td>4</td>
<td>4.0</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>78</td>
<td>78.0</td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>22.0</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmarried</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>Married</td>
<td>84</td>
<td>84.0</td>
</tr>
<tr>
<td>Widow/er</td>
<td>14</td>
<td>14.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary school</td>
<td>28</td>
<td>28.0</td>
</tr>
<tr>
<td>Middle school</td>
<td>12</td>
<td>12.0</td>
</tr>
<tr>
<td>High school</td>
<td>42</td>
<td>42.0</td>
</tr>
<tr>
<td>Post high school diploma</td>
<td>7</td>
<td>7.0</td>
</tr>
<tr>
<td>Grad + Post Grad</td>
<td>11</td>
<td>11.0</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home maker</td>
<td>23</td>
<td>23.0</td>
</tr>
<tr>
<td>Unskilled worker</td>
<td>33</td>
<td>33.0</td>
</tr>
<tr>
<td>Semiskilled worker</td>
<td>2</td>
<td>2.0</td>
</tr>
</tbody>
</table>

As per the table 1, it was seen that 92% of the patients were in the age of 41-70 years. Male outnumbered females in a ratio of 3.5:1. As far as the formal education is concerned 49% of them had higher secondary education. Only 11% were graduates. Education is important to know as it is expected that educated person will have better knowledge of ACS and they will understand post-discharge care better. Only 13% possibly had a sedentary lifestyle.

Table 2 Other characteristics of patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis of the patient</td>
<td>MI (AWMI, IWMI, STEMI, NSTEMI)</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>PTCA</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>CABG</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 2 shows that 48% patients had unstable angina and 52% as Myocardial infarction (AWMI/IWMI/STEMI/NSTEMI). They were managed either by Percutaneous transluminal coronary angioplasty (PTCA)[59%], Coronary artery bypass graft (CABG) [9%] or by medications [32%]. The therapy they received would decide their type of care to be taken, change in lifestyle and the rehabilitation.

Table 3 Information needs listed as VERY IMPORTANT by the patients suffering from ACS

<table>
<thead>
<tr>
<th>MCPLNI Subscales</th>
<th>MEAN</th>
<th>S.D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic understanding about ACS</td>
<td>15.59</td>
<td>2.075</td>
</tr>
<tr>
<td>Etiology &amp; Risk factors</td>
<td>20.62</td>
<td>1.825</td>
</tr>
<tr>
<td>Lifestyle factors</td>
<td>8.53</td>
<td>0.77</td>
</tr>
<tr>
<td>Medication information</td>
<td>20.80</td>
<td>1.88</td>
</tr>
<tr>
<td>Dietary information</td>
<td>16.50</td>
<td>1.709</td>
</tr>
<tr>
<td>Physical activity</td>
<td>17.91</td>
<td>3.062</td>
</tr>
<tr>
<td>Symptom management</td>
<td>21.56</td>
<td>2.1</td>
</tr>
<tr>
<td>Miscellaneous information</td>
<td>12.88</td>
<td>1.40906</td>
</tr>
</tbody>
</table>

The table 3 has listed down the means and standard deviations of the items in the Modified cardiac patients learning needs inventory (MCPLNI) that were ranked as very important by the patients. The items of symptom management, medication information and etiology & risk factors were the ranked highest by them.

DISCUSSION

The present study focused on the information needs of the patients suffering from ACS prior to discharge. A quantitative investigation was carried out for assessment of the patients’ information needs prior to their discharge. The patients were told to rate the needs on the Modified CPLNI. The means of the responses received by the patients were analyzed. Maximum i.e. 72% patients were from 51-70 years and of the total patients, 78% were males.
It was seen that majority of the patients demonstrated the need of identifying the symptoms due to ACS and what actions they can take in case of a repeated event. The mean for the category of symptom management was 21.56 (sd=1.40906). The ranking revealed that the next concern was regarding the need to know about the etiological and risk factors that contributed to the event of ACS which demonstrated a mean of 20.62 (sd=1.825). That included the need for information regarding the causes and risk factors like smoking / tobacco use, diet or heredity. The chronologically important identified need was regarding the medication information with a mean of 20.8 (sd=1.88). The patients needed to know the role of the medications they were being administered during their course of treatment as well as their potential side-effects and the duration of taking those medications. The other needs though ranked lesser in the means but were also of concern to the patients were regarding the physical activity, returning back to work and the need of dietary modification. The least ranked needs were regarding the basic understanding of the illness, resuming sexual activities and follow –up activities. In a study done by Hussein Z et al revealed the high rating for medication information (mean=4.50), structure and functions of the heart (mean=4.43) and the symptom management mean=4.37. No significant relationship was found between the patients’ discharge information needs and their demographic data except race. (Hussein SZ et al, 2018)

Quantitative and qualitative studies suggest the importance of assessing the patients’ needs. However, such studies have not yet comprehensively being carried out in India. Thus, assessment of the learning needs during the convalescent period must form a basis for development of patient information booklet that can be handed over to the patient at the time of discharge. In addition, an attending nurse answering patient’s queries will determine the success of treatment. One to one dialogue is more important and fruitful. Therefore, every ICCU must develop a standard discharge protocol. Not only the patients but his family members & caregivers are very anxious to know the patient management including rehabilitation after the discharge from the hospital. The author plans to present the caregivers needs separately.

**Recommendation**

The study emphasizes a need for enhanced communication & patient involvement in the care before discharge of the patients with ACS. These will help in improvement of the self-care practices at home leading to lesser readmissions and a positive change in the lifestyles of the patients. Furthermore, qualitative studies would help in gaining insight about the how the patients and family members modify their lifestyle when back home in absence of nursing care & supervision.

**CONCLUSION**

Information needs of the ACS patients are to be assessed and the health care providers viz., doctors and nurses should respond to their needs prior to their discharge. A tailor-made educational process could improve the outcomes for the patients with respect to prevention & timely recognition of any complications.

**References**


**How to cite this article:**