



**“KNOWLEDGE REGARDING HYPERLIPIDEMIA AMONG ADULT PATIENTS IN SELECTED HOSPITALS, GUWAHATI (M), ASSAM AND WITH A VIEW TO DEVELOP INFORMATION BOOKLET ON HYPERLIPIDEMIA: A DESCRIPTIVE STUDY”**

<b>Ankita Nath</b>	M.Sc. Nursing 2nd year (Medical surgical nursing specialty) Asian Institute of Nursing Education, Guwahati, Assam, India.
<b>Dr. Ranju Rani Das</b>	Vice Principal, Asian Institute of Nursing Education, Guwahati, Assam, India.
<b>Mrs. Pallabi Sarmah</b>	Lecturer, Asian Institute of Nursing Education, Guwahati, Assam, India.

**ABSTRACT** **Background of the study:** Hyperlipidemia is one of the main risk factors for cardiovascular disease. Several studies have reported that many adult patients with hyperlipidemia were not on any lipid lowering drugs. Even among those patients who were on lipid lowering agents, the prevalence of those who achieved the desired lipid level was low. In 2020, WHO reported 133 million people in the five largest EU countries suffer from high levels of cholesterol. Worldwide, about 17 million deaths due to CVD occur each year. The CDC estimates that approximately 93 million Americans over 20, or close to 40% of the U.S. Population, have high cholesterol, which puts them at increased risk of heart disease. **Aim:** Aim of The Study was to assess the level of knowledge regarding hyperlipidemia among the adult patients of selected hospitals of Guwahati (M), Assam. **Methods And Materials:** A descriptive study design was used to accomplish the objectives. Study was undertaken on 150 adult patients admitted and in attending OPDs of selected hospitals of Guwahati (M), Assam by using non- probability convenience sampling technique. Participants were selected based on inclusion and exclusion criteria. Structured knowledge questionnaire were used to assess the level of knowledge. The reliability of the tool was done by using Split half method, where  $r = 0.80$  so it was found to be reliable and the conceptual framework used for the study is the Modified Health Belief Model. **Results:** It was found that majority i.e., 139 (92.67%) respondents had moderately adequate knowledge, 11 (7.33%) respondents have adequate knowledge, and none of the respondents have inadequate knowledge about hyperlipidemia. There was significant association of knowledge with selected demographic variables like educational qualification, occupation, and source of information and family history of high cholesterol. **Conclusion:** From this study it was concluded that majority i.e. 92.67% adult patients have moderately adequate knowledge, 7.33% adult patients have adequate knowledge, and none of the respondents have inadequate knowledge regarding hyperlipidemia.

**KEYWORDS :** Knowledge, Hyperlipidemia, Adult Patients, Hospital, Information Booklet.

### INTRODUCTION

Hyperlipidemia is a family of disorders that are characterised by abnormally high levels of lipid (fats) in the blood. While fats play a vital role in the body's metabolic processes, high blood levels of fats increase the risk of coronary heart disease (CHD). Hyperlipidemia represents a subset of dyslipidemia and a superset of hypercholesterolemia. Hyperlipidemia is usually chronic and requires ongoing medication to control blood lipid levels. WHO estimates the overall prevalence of hyperlipidemia was 33.8% and hyperlipidemia is more prevalent in adult over 30 years. The basis of treating hyperlipidemia remains diet, physical exercise and weight reduction.

At the need of the time that cardiovascular diseases are leading cause of death in the adult age group worldwide. Hyperlipidemia is one of the main risk factors for cardiovascular disease. It contributes more than half of global ischemic heart disease (IHD) and 18% of global cerebrovascular disease. National data showed that 33% of adult patients who had acute coronary syndrome had already been diagnosed as having hyperlipidemia before their event. To find out knowledge of adult patients regarding hyperlipidemia because it can help the adult age groups safety by reducing the events of CVD.

### OBJECTIVES:

1. To assess the knowledge regarding hyperlipidemia among adult patients in selected hospitals, Guwahati (M), Assam.
2. To determine the association between the knowledge on hyperlipidemia with selected demographic variables.
3. To develop and validate the information booklet regarding hyperlipidemia among the adult patients.

### Review Of Literature

#### Section I: - Literature Related To Prevalence Of Hyperlipidemia Among Adult Patients

**Gupta R, et al. (2017)**, conducted a descriptive study on recent trends in epidemiology of dyslipidemias in India. Studies report shows that high cholesterol is present in 25%-30% of urban and 15%-20% rural subjects. This prevalence is lower than high- income countries. The most common dyslipidemia in India are borderline high LDL cholesterol, low HDL cholesterol and high triglycerides. Studies have

reported that over 20 year period total cholesterol, LDL cholesterol and triglycerides levels have increased among urban populations.<sup>3</sup>

#### Section II: - Literature Related To Knowledge Regarding Hyperlipidemia

**Kabir A, et al. (2022)**, conducted a study on long-term dairy consumption behaviour and how it relates to mortality. It includes four different types of long-term milk consumption, namely whole milk, reduced fat milk, skim milk and soy milk, in relation to mortality among adults diagnosed with cardiovascular disease (CVD). A retrospective population-based study was conducted in Australia linking baseline (2006-2009) and follow-up data (2012-2015) to hospitalization and mortality data up to 30 September 2018. A total of 1,101 deaths occurred among 7236 participants with CVD over a mean follow-up of 8.4 years. Males (Hazard Ratio, HR = 0.69, 95% CI (0.54; 0.89)) and females (HR = 0.59 (0.38; 0.91)) with long-term reduced fat milk consumption had the lowest risk of mortality compared to counterparts with long-term whole milk consumption. Among participants with ischemic heart disease, males with long-term reduced fat milk consumption had the lowest risk of mortality (HR = 0.63, 95% CI: 0.43; 0.92). This study concluded that among males and females with CVD, those who often consume reduced fat milk over the long-term present with a 31-41% lower risk of mortality than those who often consume whole milk, supporting dairy advice from the Heart Foundation of replacing whole milk with reduced fat milk to achieve better health.<sup>4</sup>

#### Research Methodology

**Research Approach:** Quantitative Research Approach

**Research Design:** Descriptive Research Design

**Research Variable:** Knowledge

**Demographic variable:** Age, gender, religion, educational qualification, occupation, marital status, income per month, dietary habit, previous knowledge, source of information, history of high cholesterol.

**Setting of the study:**

Selected hospitals of Guwahati (M), Assam. Down Town Hospital, Ayursundra Superspeciality Hospital, Hayat Hospital, GNRC Hospital Dispur, Guwahati, Assam.

**Population:** Adult Patients.

**Target Population:** Adult patients admitted in hospitals Guwahati (M), Assam.

**Accessible Population:** Adult patients who were admitted in selected hospitals, Guwahati (M), Assam.

**Sample:** Adult patients who are admitted in selected hospitals, Guwahati (M) and who fulfilled the inclusion criteria.

**Sample size:** 150

**Sampling technique:** Non- probability convenience sampling technique.

**Inclusion Criteria:** In this study the inclusion criteria were the adult patients who-

- were willing to participate and give consent
- can read and write English and Assamese
- present in the day of data collection

**Exclusion Criteria:**

The exclusion criteria were the adult patients who were seriously ill and mentally unstable.

**Tool And Technique:**

Structured knowledge questionnaire was used to assess the level of knowledge and the technique was self-report.

**Scoring Key:**

The structured questionnaire consists of 22 questions and each questions had only 1 correct answer. For each correct response “1” mark was given and for every incorrect answer a score of “0” and maximum score was “22” and minimum score was “0”. The level of knowledge was categorized as follows:

- Inadequate knowledge <32% (<7 score).
- Moderate knowledge 32 – 64% (7 – 14 score).
- Adequate knowledge >64% (>14 score).

**Content validity of the tool:**

The prepared instrument along with the problem statement and objectives was submitted to 5 nursing experts in the field of medical surgical nursing, 2 medical experts.

**Ethical consideration:**

- Ethical consideration to proceed with the study was taken from “Ethics Committee” GNRC (INS trust), Dispur, Guwahati, Assam. Permission was obtained from concerned authorities of selected hospitals to carry out the study.
- Nature of the study and the purpose was explained to the selected samples and written and verbal informed consent was obtained. The subjects were assured of confidentiality and anonymity of the data obtained.

**Reliability of the tool:**

The reliability of the tool was 0.08, and it was found to be reliable.

**Pilot Study:**

The pilot study was conducted from 30<sup>th</sup> Nov to 6<sup>th</sup> Dec, 2021. 30 samples were selected using non probability convenience sampling technique and the study was found to be feasible.

**Main study:** 17<sup>th</sup> January to 4<sup>th</sup> February, 2022.

**RESULTS**

**Table I: Frequency and percentage distribution of adult patients according to demographic variables n = 150**

Demographic Variables	Frequency	Percentage (%)	
a) Age in years	31 – 40	77	51.3%
	41 – 50	54	36.0%
	51 – 60	19	12.7%
b) Gender	Male	61	40.7%

	Female	89	59.3%
	Transgender	0	0%
c) Religion	Hinduism	140	93.3%
	Islam	4	2.7%
	Christianity	6	4.0%
	Others	0	0%
d) Educational Qualification	Primary	13	8.6%
	High school	28	18.7%
	Higher secondary	54	36.0%
	Graduate	21	14.0%
e) Occupation	Govt. Job	18	12.0%
	Private job	52	34.7%
	Business	15	10.0%
	Home maker	9	6.0%
	Unemployed	56	37.3%
	Others	0	0%
f) Marital status	Married	89	59.3%
	Unmarried	61	40.7%
	Divorced	0	0%
	Separated	0	0%
g) Family Income (per month)	Rs. 10,000	36	24.0%
	Rs. 10,000-20,000	22	14.7%
	Rs. 20,000-40,000	34	22.7%
	More than Rs. 40,000	58	38.6%
h) Dietary habit	Non- vegetarian	116	77.3%
	Vegetarian	34	22.7%
i) Previous Knowledge	Yes	122	81.3%
	No	28	18.7%
j) Source of I nformation	Literature	18	15%
	Media	31	26%
	Friends and family	23	19%
	Health care provider	20	16%
	Internet	30	24%
k) Family history of high cholesterol	Yes	10	6.7%
	No	140	93.3%

**Table II: Frequency And Percentage Distribution Of The Adult Patients According To Their Level Of Knowledge. n=150**

LEVEL OF KNOWLEDGE	FREQUENCY	PERCENTAGE (%)	MEAN	SD	RANGE	TOTAL SCORE
Inadequate Knowledge Marks <7 (<32%)	0	0%	11.71	2.39	8-20	22
Moderately Adequate Knowledge Marks 7- 14 (32- 64%)	139	92.67%				
Adequate Knowledge Marks >14 (>64%)	11	7.33%				

SD- Standard Deviation

Table II showed that, level of knowledge, majority i.e. 139 (92.67%) of the adult patients had moderately adequate knowledge, 11 (7.33%) had adequate knowledge and none of the adult patients had inadequate knowledge regarding hyperlipidemia.

The mean and standard deviation of knowledge were 11.71 and 2.39 respectively and ranges of the score were 8-20 out of 22.

**Table III: Association of knowledge regarding hyperlipidemia among adult patients with demographic variables n=150**

DEMOGRAPHIC VARIABLES	Chi square	df	P- value	REMARKS
Age in years	3.633	2	0.163	NS at p>0.05
Gender	0.091	1	0.763	NS at p>0.05
Religion	0.848	2	0.654	NS at p>0.05
Educational Qualification	35.429	4	0.0001	S at p<0.05

Occupation	40.382	4	0.0001	S at p<0.05
Marital status	0.948	1	0.330	NS at p>0.05
Family Income (per month)	6.767	3	0.080	NS at p>0.05
Dietary habit	3.479	1	0.099	NS at p>0.05
Previous Knowledge	2.724	1	0.099	NS at p>0.05
Source of information	29.290	4	0.0001	S at p<0.05
Family history of high cholesterol	135.390	1	0.0001	S at p<0.05

NS- Non Significant, S- Significant, df- Degree of freedom, f- Frequency

Table III shows that, association was statistically tested by using chi square at  $p = 0.05$  level of significance and the results shows that there was no significant association between age, gender, religion, marital status, family income, dietary habit, and previous knowledge; except educational qualification, occupation, source of information and family history of high cholesterol.

#### DISCUSSION:

The present study showed that majority i.e. 139 (92.67%) adult patients had adequately moderate knowledge whereas 11 (7.33%) had adequate knowledge on hyperlipidemia which is supported by a descriptive study conducted by Nagaraju R, et al. (2012) to assess the patient's knowledge, attitude and practices of Hyperlipidemia. Out of 850 patients, **80.4%** had knowledge and considered to be adherence with hypolipidemic therapies. Above half of the patients (**57.0%**) did not have knowledge or think they have Hyperlipidemia, **22.4%** did not know the reasons for taking hypolipidemic drugs and **28.1%** did not realize the need for long-term treatment.<sup>6</sup>

The study revealed that demographic variables like education qualification ( $\chi^2=35.429$ ,  $p=0.001$ ), occupation ( $\chi^2=40.382$ ,  $p=0.0001$ ), source of information ( $\chi^2=29.290$ ,  $p=0.0001$ ), family history of high cholesterol ( $\chi^2=135.390$ ,  $p=0.0001$ ) had shown statistically significant association with level of knowledge on hyperlipidemia among adult patients at  $p<0.05$ .

#### CONCLUSION:

The study concludes that the overall level of knowledge of adult patients regarding hyperlipidemia was moderately adequate knowledge 139 (92.67%). The mean score was 11.71. One of the leading causes of heart diseases is lack of knowledge and awareness regarding hyperlipidemia. Therefore more emphasis must be given to create awareness among adult and they should get update information related to hyperlipidemia and related complications of hyperlipidemia.

#### REFERENCES:

- Joshi SR, Anjana RM, Deepa M, Pradeepa R, Bhansali A, Dhandania VK, et al. Prevalence of dyslipidemia in urban and rural India: the ICMR-INDIAB study. *PLoS One* [Internet]. 2014 [cited 2022 May 16];9(5):e96808. Available from: <http://dx.doi.org/10.1371/journal.pone.0096808>
- Choi GJ, Kim HM, Kang H. The potential role of dyslipidemia in COVID-19 severity: An umbrella review of systematic reviews. *J Lipid Atheroscler* [Internet]. 2020 [cited 2022 May 16]; 9(3):435–48. Available from: <http://dx.doi.org/10.12997/jla.2020.9.3.435>
- Venkitchalam L, Wang K, Porath A, Corbalan R, Hirsch AT, Cohen DJ, et al. Global variation in the prevalence of elevated cholesterol in outpatients with established vascular disease or 3 cardiovascular risk factors according to national indices of economic development and health system performance. *Circulation* [Internet]. 2012 [cited 2022 May 16]; 125(15):1858–69. Available from: <https://pubmed.ncbi.nlm.nih.gov/22492667/>
- Gupta R, Rao RS, Misra A, Sharma SK. Recent trends in epidemiology of dyslipidemias in India. *Indian Heart J* [Internet]. 2017 [cited 2022 May 16]; 69(3):382–92. Available from: <http://dx.doi.org/10.1016/j.ihj.2017.02.020>
- Kabir A, Barr ML, Schutte AE. Different types of long-term milk consumption and mortality in adults with cardiovascular disease: A population-based study in 7236 Australian adults over 8.4 years. *Nutrients* [Internet]. 2022 [cited 2022 May 16];14(3). Available from: <https://pubmed.ncbi.nlm.nih.gov/35277068/>
- Ramineni H.B, Nagaraju R, Koganti V, Knowledge, Attitude and Practices of Hyperlipidemia patients in a Tertiary care setting. January 2012. Available URL: <https://www.researchgate.net/publication/269411836.ijpr.com>.