Knowledge regarding Hyperlipidemia among Middle Aged People: a Descriptive Survey

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Abstract
Background: *Hyperlipidemia is refers to the abnormal elevated levels of lipids or lipoprotein in the blood. A lot of health risks are associated with hyperlipidemia, it includes Coronary artery disease, Myocardial Infarction and other cardiac problems. A descriptive survey was conducted to assess the knowledge regarding among middle aged people in selected hospital at Ernakulam district.* **Objectives:** *The objectives were to assess the knowledge regarding the hyperlipidemia among middle aged people and to find the association between the knowledge regarding hyperlipidemia among middle aged people and selected demographic variables.* **Methods:** *The research approach adopted was quantitative approach and research design was descriptive survey design.100 participants were selected by convenience sampling method. Data was collected by questionnaire method.* **Results:** *The finding of the study revealed that only 21% having adequate knowledge regarding prevention of hyperlipidemia. 53% have average knowledge and 26% having poor knowledge about the topic. It also showed that there is significant association between the previous knowledge and occupation.* **Conclusion:** *The study concludes that among 100 participants very few had adequate knowledge regarding hyperlipidemia and most of the participants had average knowledge. These findings highlight the need for awareness programme to the people regarding hyperlipidemia.*
Key words: *Hyperlipidemia; Middle aged people, Prevention*

I.   Introduction

Hyperlipidemia is abnormally elevated levels of any or all lipids or lipoproteins in the blood. It is the most common form of dyslipidemia. A cholesterol circulates in the blood in combination with triglycerides and protein-bound phopholipids. This complex is called lipoprotein. There are 4 basic groups of lipoproteins, all produced in the intestinal wall. Elevation of lipoproteins is called hyperlipoprotenimia. Elevation of lipids, a component of lipoproteins, is called hyperlipidemia.[1]

The ratio of total cholesterol to HDL (High density lipoprotein) or of LDL (Low density lipoprotein) to HDL is the best test for predicting the risk of coronary artery disease. Elevated LDL levels are associated with a greater incidence of CAD. So it is known as bad cholesterol. HDL have a protective action. They transport cholesterol away from the tissue and cells of the arterial wall to the liver for excretion. So it is known as good cholesterol. Triglycerides composed of free fatty acids and glycerol, are stored in the adipose tissue and are a source of energy[2].

The prevalence of raised total cholesterol increased noticeably according to the income level of the country. In low income countries around a quarter of adults had raised total cholesterol, in lower middle income countries this rose to around a third of the population for both sexes. In high-income countries, over 50% of adults had raised total cholesterol; more than double the level of the low-income countries.[3]

The total serum cholesterol level is considered to be an important modifiable risk factors for cardiovascular diseases. Surveillance of cardiovascular risk factors conducted by the Indian council of medical research (ICMR) in different Indian states showed that the urban Indian population has a higher prevalence of hypercholesterolemia than the rural population. It was found that the mean cholesterol levels in urban subjects were higher than their rural counterparts, whereas no urban rural differences were observed in terms of triglycerides and HDL-C.[4] Considerable differences in the prevalence of hypercholesterolemia were observed among rural population in different Indian states , with Kerala reporting the highest prevalence. Advancing age, obesity/overweight, male sex, socioeconomic status and consumption of alcohol were found to be the major predictors of hypertension. Study from north Kerala shows a prevalence of 63.8%. It was more prevalent in women in those with BMI in the range 23.0–24.9 kg/m2 and in those with blood pressure ≥140/90 mmHg [5]. The incidence of hyperlipidemia is increased day by day. A prospective, randomized cross -sectional study was conducted to assess knowledge, attitude and practice of hyperlipidemia patients in a tertiary care setting in South

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India found that 80.4% of the total studied patients were adherent to medications. More than half of the participants (57%) did not think they have hyperlipidemia [6].

A prospective observational study to assess the co-relation in gender and age with lipoprotein levels in hyperlipidemia patients. The study was conducted in department of cardiology of tertiary care teaching hospital in Kerala. A total of 520 patients were included and the data was collected by data entry form. The study was concluded that the prevalence rate is more common in male population and incident rate is too high in younger age population. The co-relation of age and gender is directly proportional to the incidence of hyperlipidemia.[7]

II. Materials And Methods

The present study was carried out among the middle aged persons who came in medical OPD of a selected hospital at Ernakulam. The purpose of the study was to assess the knowledge regarding the prevention of hyperlipidemia among middle aged persons and to find out the association between hyperlipidemia and selected demographic variables. The research design used for this study is descriptive survey design. The information regarding prevention of hyperlipidemia were collected from the participants by using structured knowledge questionnaire. Data were collected regarding socio demographic characteristics and knowledge regarding prevention of hyperlipidemia. Sample size of this study composed of 100 participants between 35-55 years and samples were selected by convenience sampling method.

III. Results

In the present study majority of participants (31%) were in the age group of 40-45 years, 30% belongs the age group of 35-40 years,22%belongs the age group of 45-50 years and17% belongs to the age group of 50-55years.
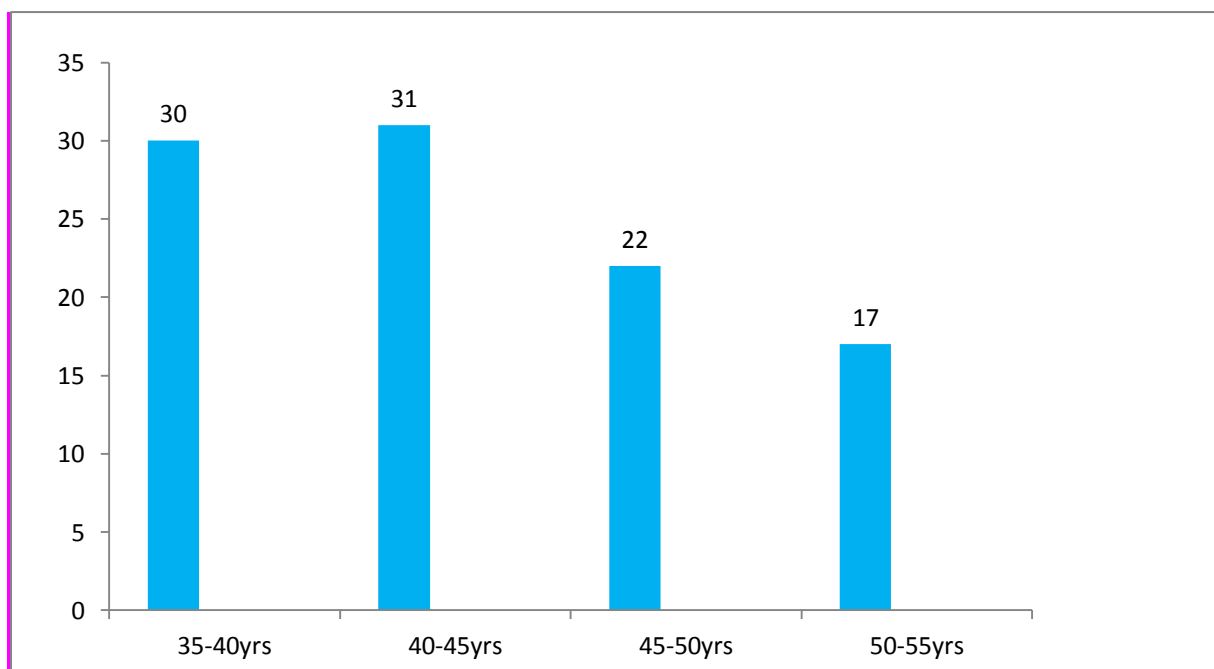

Figure 1: Percentage distribution of participants based on age

The data showed that majority of participants (70%) were female and only (30%) were males. Most of them (45%) were unemployed, (23%) were professional, (19%) were skilled worker, (13%) were unskilled worker. Data describes that majority of participants (39%) had family income of Rs:10000-20000/-, (27%) had family income above Rs:30000/-, (23%) had family income of Rs:20000-30000/-, (11%)had family income below Rs:10000/- (Table 1).

Table1: Distribution of Participants based on the demographic characteristics   (N=100)

SI NO	Sample characteristics	Frequency	Percentage (%)
Gender	Male	30	30
	Female	70	70
Occupation	Professional	23	23
	Skilled worker	19	19
	Unskilled worker	13	13
	Unemployed	45	45
Monthly Income	<10000	11	11

(Rs/month)	10000-20000	39	39
	20000-30000	23	23
	>30000	27	27

Among 100 participants nearly half of the participants (40%) had only primary education, 36% studied up to secondary level and 24% were graduates.
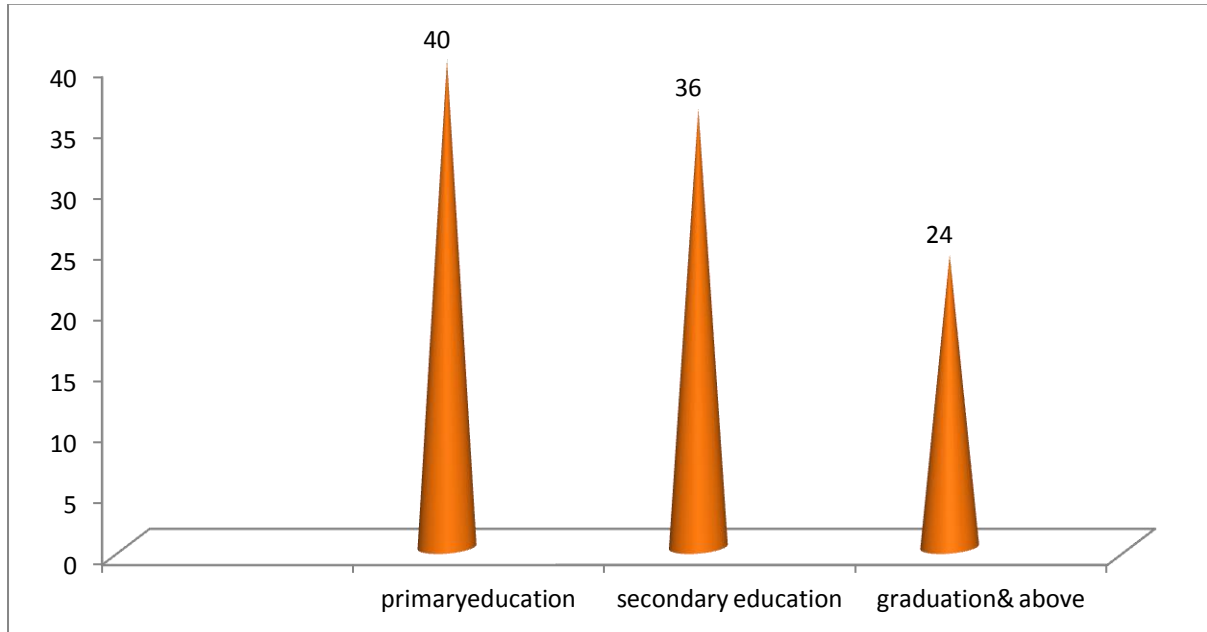

Figure 2. Distribution of the participants based on education

The present study shows that majority of participants 68(68%) had no previous knowledge regarding prevention of hyperlipidemia, only 32(32%) had previous knowledge about the topic (Figure 4).
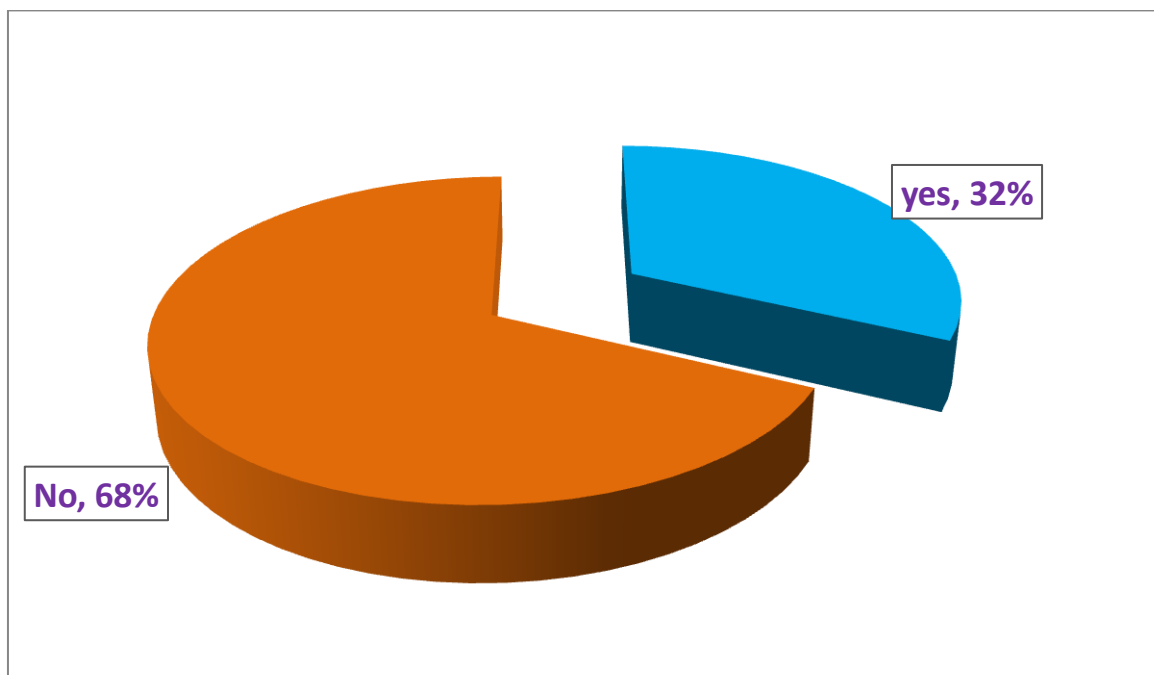

Figure 3. Distribution of participants based on their previous knowledge.

In this study, the level of knowledge is graded under 3 levels: adequate, moderately adequate and inadequate. Among 100 participants only 21 (21%) had adequate knowledge, 53 (53%) had moderately

adequate knowledge and about 26 (26%) had inadequate knowledge regarding prevention of hyperlipidemia. The mean knowledge score was12.86 with a standard deviation of 3.5

Table 2. Mean & SD of level of knowledge on prevention of hyperlipidemia   N=100

Level of Knowledge	Frequency	Mean ± SD
Adequate (≥16)	21	
Moderately Adequate (11-15)	53	12.86±3.5
Inadequate (≤10)	26	

From this study it was found that there is an association between knowledge of middle aged people and demographic variable such as occupation and previous knowledge whereas, there is no association with the other demographic variables.

IV.   Discussion

The present study was intended to assess the knowledge regarding prevention of hyperlipidemia among middle aged people in selected hoispital at Ernakulam district. In this study majority (53%) of participants showed an average level of knowledge. only 21% shows adequate knowledge and 26% shows poor knowledge. The mean knowledge score was12.86 and standard deviation was 3.5. A cross sectional study to assess awareness, knowledge and practices of dyslipidemia management among post graduate primary care trainee in Malaysia showed that   majority (98.1%) were aware of the national lipid guide line and 95.6% reported that they used the lipid guide line in their practice. There was a positive significant association between awareness and the use of the guideline with knowledge score however no significant association between knowledge score and socio demographic data was observed.[8]

A national research network survey was conducted to assess the family physician's knowledge, beliefs and self reported practice, patterns regarding hyperlipidemia in America. Response rate was 58% over 90% surveyed family physicians screened adults for hyperlipidemia. As a part of cardiovascular disease prevention strategies, most of 89% did this screening by themselves without support of OP staff, and 36% reported routine use of follow sheet. Most had heard of the ATP-3 guidelines (85 %) but only 13% had read them carefully. Only 17% of respondents used coronary heart disease risk calculator always or usually.[9]

A similar study was conducted to assess physician's awareness, practice and knowledge of familial hypercholesterolemia in Saudi Arabia. Study was conducted among 294 physicians at 4 tertiary hospitals in Riyadh between March 2016 and May 2016 using a self administered questionnaire. Overall 92.9% of the participants have poor knowledge of familial hypercholesterolemia while only 7.1% have acceptable knowledge. The majority (68.7%) of physicians rated their familiarity with the topic as average or above average, and these had higher mean knowledge scores than participants with self reported below average familiarity (mean 3.4 versus 2.6) .[10]

The current study found a significant association between knowledge of middle aged people and demographic variables such as occupation and previous knowledge. There was no significant association between demographic variables such as age, sex, education and family income.   A cross sectional study to assess the knowledge about healthy heart habits in urban and rural population of Punjab after SMS campaign was conducted over a period of seven months found that years of education was a significant variable for higher knowledge of participants regarding some questions related to prevention of cardiovascular diseases including food lowering cholesterol, benefits of regular walk and diseases causing childhood obesity.[11]

V.   Conclusion

The present study was undertaken to assess the knowledge regarding the prevention of hyperlipidemia among middle aged people in selected hospital at Ernakulam district. This study has given an insight for researcher towards prevention of hyperlipidemia among middle aged people. The present study findings showed that there was a need for providing teaching programme by the nurse midwife, including student health nurse, auxiliary nurse and other health professionals. Periodically the knowledge needs to be reviewed, evaluated and motivated on different aspects of health.

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