

Nursing College Students' Knowledge about Dyslipidemia in University of Baghdad

AYAD M. MOUSA¹, RAJAA I. ABD²; HAIDER M. MAJEED³

PhD (Instructor) Fundamentals of Nursing department, university of Baghdad

PhD (Assistant Professor) Fundamental of Nursing department, University of Baghdad

Master (Instructor) Fundamental of Nursing department, University of Baghdad

Correspondence to Ayad M Mousa Email: ayadm@conursing.uobaghdad.edu.iq

ABSTRACT

Background: Mainly Dyslipidemia causes cardiovascular diseases (CVDs) especially coronary heart disease (CHD). Dyslipidemia is caused by multiple factors including diet, tobacco smoking, or heredity.

Methods: Descriptive cross-sectional design study to assess of nursing students' knowledge about dyslipidemia. The study started from 3rd January until seventieth April 2020 in order to complete the study. Convenient sample of (135) nursing students' who were from all study stages unless first stage because they have no. The instrument of the study was questionnaire consisted of two parts the first consist of socio-demographic characteristics. Second part consist of fifteen questions related to dyslipidemia, which are built based on extensive and related literature review. Statistical Analysis has been applied through using SPSS version 20 both descriptive and inferential analysis.

Results: the findings shows that the total students' knowledge concerning dyslipidemia, had moderate knowledge, with respect to the total mean of score (MS) which was (0.52). In addition, there is no significant association between students' knowledge and sociodemographic variables.

Conclusions: Based on the results of the study; it can be concluded that nursing students have no sufficient knowledge toward dyslipidemia; also, demographic variables have no effect on knowledge of study participants. Another study needed with large sample to find more outcomes about knowledge and awareness of nursing students towards dyslipidemia.

Keyword: Nursing, Students' Knowledge, Dyslipidemia

INTRODUCTION

Blood lipids encompass blood cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL), and triglyceride when these lipids disturb Dyslipidemia occur in other words Dyslipidemia mean any disturbances in the level of blood lipids in the human body. This disturbance can be caused by multiple factors including diet, tobacco smoking, or heredity. Approximately one third of American adults had dyslipidemia who are older than 20 years in era of 2005-2008¹. When the individual has too high level of LDL, which is considered bad type of cholesterol, or elevated triglycerides that are caused by unburned calories into the body and low level of HDL, which is good type of cholesterol. These disturbances can lead into cardiovascular disease specially coronary heart diseases². Dyslipidemia can be affected by individual lifestyle behaviors such as decreased level of physical activity, increased use of tobacco, obesity, and especially nutritional factors in which low consumption of fruits, vegetables, nuts, and seeds and high consumption of saturated fats other factors that can increase risk for dyslipidemia are type 2 diabetes, hypothyroidism, and chronic kidney disease^{1,2}. Dyslipidemia can be classified into two major types which are primary and secondary ones. Primary types are mainly caused by genetic factors. Common types or causes of primary dyslipidemia are Familial combined hyperlipidemia, that can occur in young adults, Familial hyperapobetalipoproteinemia which is related to LDL group's mutation, and Familial hypertriglyceridemia in which high level of triglycerides occur. Secondary type of dyslipidemia is affected by lifestyle behaviors or medical disorders most importantly diabetes mellitus that interact with blood lipid levels⁽³⁾. Clinical manifestations cannot be appeared for patients with elevated blood lipids unless in severe cases xanthomas sign appear on the body, which is fatty deposits develop under the skin. These deposits can appear anywhere on the body, but they typically form on feet, hand, joints, and buttocks⁴. Blood lipid profile

measurement is the common measure performed to estimate elevation of blood level than normal. Management of dyslipidemia depends on severity of blood lipid elevation and which type involved⁵. European society of cardiology (ESC) stated that to prevent cardiovascular disease, blood lipid should be targeted and the patient should achieve more than 50% reduction in LDL goal for high risk patients. Also ESC focused on role of lifestyle interventions in dyslipidemia prevention and management. Eating Healthy Diet, quitting smoking, doing habitual physical activity, and maintaining normal body weight were important lifestyle measures to maintain normal blood lipid profile⁶.

METHODOLOGY

Descriptive cross-sectional design study to assess of nursing students' knowledge about dyslipidemia. The study started from 3rd January until seventieth April 2020 in order to complete the study. Official request and Ethical approval were taken from Deanship of the college of nursing for approval of the study and permission for data collection. The study was conducted at the college of nursing in University of Baghdad. Convenient sample of (135) nursing students' who were from all study stages unless first stage because they have no. to assess Nursing Students' knowledge concerning dyslipidemia. Instrument of the study was questionnaire consisted of two parts the first consist of socio-demographic characteristics, which are (agreement of study participation, age, gender, social status, type of the study, channel of engagement in the college of nursing, family history of disease type of information sources, risk of dyslipidemia). Second part consist of fifteen questions related to dyslipidemia, which were built based on extensive and related literature review. Content validity of the instrument was established through a panel of five experts they were faculty members from college of nursing/university of Baghdad. the purpose of reviewing the questionnaire by reviewers was to see items of

questionnaire in terms of clarity, relevance, and understandability and simplicity. A pilot study is conducted on a convenient sample of ten students from college of nursing /university of Baghdad. They were excluded from original sample of the study to achieve the following to estimate the average time to fill the entire component, to find whether the questionnaire was clear and understood by study participants. The data collection has been achieved by internet (online) through Google forms. that form was sent to respondent to fill it by self-reported method via chairmen of departments of nursing faculty in the college of nursing as formal way in form of link. In addition to notification of students that participation in the study elective. Statistical Analysis has been applied through SPSSs version 20 both descriptive and inferential analysis.

RESULTS

Table 1 revealed the majority of the study were female who accounted for (65.9%) of the total participants while male constituted (34.1%). Most of the study participants (50.4%) were ages between 22 and 25 years old. Majority of the students were single and the remainder was married. More than three quarter (80%) of study sample were morning study. High percentage of study participants (89.6%) were central channel. concerning family history more than half (53.3%) of them have chronic diseases.

Table 2 shows the total students' knowledge concerning lipid disorder, which indicated that students had moderate knowledge concerning lipid disorder in blood, with respect to the total mean of score (MS) which was (0.52).

Table 3 demonstrated there is no significant association between students' knowledge and sociodemographic variables.

Table 1: Distribution of the Studied Sample According to Socio-Demographical Characteristics Variables (n=135 Student)

Variables	Groups	Frequency	Percent
Gender	Male	46	34.1
	Female	89	65.9
	Total	135	100.0
Age Groups (Years)	18 – 21	56	41.5
	22 – 25	68	50.4
	26 & Above	11	8.1
	Total	135	100.0
Marital Status	Single	117	86.7
	Married	18	13.3
Type of study	Total	135	100.0
	Morning	108	80.0
	Evening	27	20.0
	Total	135	100.0
Acceptance channel	Central	121	89.6
	Distinct	5	3.7
	Senior high school	8	5.9
	Early institute	1	.7
	Total	135	100.0
Have a family member suffering from chronic diseases	Yes	63	46.7
	No	72	53.3
	Total	135	100.0
Do you think that dyslipidemia can have a risk on your health	Yes	132	97.8
	No	3	2.2
	Total	135	100.0
Review some scientific resources related to physical diseases to increase your knowledge	Yes	39	28.9
	No	96	71.1
	Total	135	100.0

Table 2: The Mean of Score for the Items (Students Knowledge Concerning Dyslipidemia)

No	Items	Resp	F	%	MS	SD	A.D
1	High serum cholesterol promotes arteriosclerosis.	Correct	120	88.9	.89	.315	H
		Incorrect	15	11.1			
2	hyperlipidemia is a synonym for Dyslipidemia	Correct	58	43.0	.43	.497	L
		Incorrect	77	57.0			
3	Dyslipidemia is a modifiable risk factor	Correct	90	66.7	.67	.473	M
		Incorrect	45	33.3			
4	HDL cholesterol is bad type of blood lipids	Correct	56	41.5	.41	.495	L
		Incorrect	79	58.5			
5	LDL cholesterol is good type of blood lipids	Correct	55	40.7	.41	.493	L
		Incorrect	80	59.3			
6	Fasting LDL cholesterol should be less than 200 mg/dL for very high-risk patients	Correct	61	45.2	.45	.500	L
		Incorrect	74	54.8			
7	Total cholesterol is less than 300mg/dL is acceptable for healthy adults	Correct	64	47.4	.47	.501	L
		Incorrect	71	52.6			
8	HDL cholesterol is less than 30 mg/dL is favorable and acceptable	Correct	57	42.2	.42	.496	L
		Incorrect	78	57.8			
9	physical inactivity can elevate bad cholesterol in the human body	Correct	88	65.2	.65	.478	M
		Incorrect	47	34.8			
10	high-density lipoprotein (HDL) a protein-bound lipid that	Correct	68	50.4	.50	.502	M

	transports cholesterol to tissues in the body, exerts a harmful effect on the arterial wall	Incorrect	67	49.6			
11	soluble dietary fiber may help reduce cholesterol levels	Correct	101	74.8	.75	.436	H
		Incorrect	34	25.2			
12	Statins groups (medications) are Frequently given as initial therapy for significantly elevated cholesterol and LDL levels.	Correct	63	46.7	.47	.501	L
		Incorrect	72	53.3			
13	statins groups (medications) can be given in patients with liver disease	Correct	59	43.7	.44	.498	L
		Incorrect	76	56.3			
14	lipoproteins are manufactured in the kidneys for example LDL,HDL, VLDL	Correct	49	36.3	.36	.483	L
		Incorrect	86	63.7			
15	Diabetes Mellitus can cause Dyslipidemia	Correct	76	56.3	.56	.498	M
		Incorrect	59	43.7			
Total		Correct			7.88	7.626	M
		Incorrect			0.52	0.508	

(A.D.): Assessment Degree, M.s=mean of score{(0 - .33) = Low (L); (0.34 - 0.67)= Moderate(M); (0.68 - 1) = High(H)}

Table 3: Association between Socio-Demographic Characteristics and Level of Students' Knowledge toward Dyslipidemia

Socio-demographic variables	Knowledge level		
	Chi-Square	P value	Sig.*
Gender	.372	.134	NS
Age Groups(Years)	.474	.256	NS
Marital Status	.294	.553	NS
Type of study	.363	.167	NS
Acceptance channel	.464	.877	NS
Have a family member suffering from chronic diseases	.266	.729	NS
Do you think that "Dyslipidemia" can have a risk on your health	.165	.994	NS
Review some scientific resources related to physical diseases to increase your knowledge	.302	.502	NS

DISCUSSION

The current results reported that The participants of the study were mostly from female (65.9%), this can be due to field of nursing has possibility of acceptance from female gender. also the findings of the present study found that total knowledge level of the study participants toward dyslipidemia were moderate which might be unacceptable. The findings of the current study come in disagreement with results from a study conducted in Central Michigan University to assess students' knowledge about metabolic syndrome including cholesterol knowledge and management, more than two thirds of studied samples had good knowledge⁷. The students' knowledge as general should be in high level because nursing students will be front line in health care setting especially in cardiac care centers where CVDs are mainly caused by Dyslipidemia. The current findings in this study reported approximately one third of nursing student do not know that dyslipidemia is considered as changeable risk factor. This can mean the students have no attention toward this disorder because they perceive that they are healthy ones and dyslipidemia is disorder of elderly people in addition results from study done to assess knowledge toward heart disease in USA with dyslipidemia, high percent of study samples do not recognize their despite they had dyslipidemia⁸. Based on present results; it can be concluded that nursing students have no sufficient knowledge toward the types of cholesterol in the blood. 79 out of 135 incorrect answer regarding item "HDL cholesterol is bad type of blood lipids" and 80 out of 135 concerning item LDL cholesterol is good type of blood lipids these results are in agreement with results from research study conducted by⁹. They reported low knowledge level toward cardiovascular risk indicators such as blood lipid levels. The nursing students should be highly educated about pathophysiology of lipid disorders especially they have high knowledge toward types of cholesterol to differentiate interventions needed for each type and complications specifically diet recommendations. More than half (57.8%) of studied samples does not know the favorable level of HDL in their body. This can lead to bad healthy behaviors because

they have no idea about normal level of HDL finally leading to unhealthy consequences such as IHD although more than one third of them have family history of chronic diseases. According to the results of the current study nearly two thirds (63.7%) of studied samples do not know site of lipid manufacturing in the human body, this mean nursing students have no knowledge and much attention toward lipid physiology which can be reflected clinically in health care settings after graduation. The study results showed no significant findings found between demographic variables and level of knowledge of studied samples, these results agree with outcomes from cross-sectional study done in Malaysia that did not find significant association between knowledge scores regarding dyslipidemia and demographic variables¹⁰.

CONCLUSIONS

Based on the results of the study; it can be concluded that nursing students have no sufficient knowledge toward dyslipidemia; also, demographic variables have no effect on knowledge of study participants. Another study needed with large sample to find more outcomes about knowledge and awareness of nursing students towards dyslipidemia.

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