

EVALUATION OF KNOWLEDGE, ATTITUDE, PRACTICE REGARDING LIFESTYLE DISEASES AMONG PHARMACY COLLEGE STUDENTS IN PRIVATE INSTITUTION AT CUDDALORE, TAMIL NADU – A CROSS-SECTIONAL STUDY**Indra Kumary D.*, Santhosh Kumar L.¹, Subasree J.², Prem G.³, Saminathan C.⁴**

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ABSTRACT

Aim: The aim of the study is to evaluate the knowledge, attitude, and practice regarding lifestyle diseases and its awareness among pharmacy college students in a private institution at Cuddalore, Tamil Nadu. **Materials and Methods –** The students studying in Mayor Radhakrishnan College of Pharmacy (MRCP), Cuddalore, Tamil Nadu were provided with self-administered questionnaires. Only pharmacy students above the age of 17 years were included in the study. It is a cross-sectional questionnaire-based study. A physician-validated questionnaire containing 26 questions was circulated among pharmacy students to evaluate their knowledge, attitude, and practice regarding lifestyle diseases and its awareness. **Results and Discussion:** In our study, questionnaires were distributed to 139 pharmacy students, among which 128 students agreed to participate in the study. Majority of the respondents were female students 95 (68%). Most of the participants belonged to B.Pharm course 95 (68%). Majority of the respondents were from second year students 72 (52%). The study findings revealed that pharmacy students had adequate knowledge and awareness regarding lifestyle diseases and their preventive measures. **Conclusion:** The present study shows that pharmacy students possess adequate knowledge regarding lifestyle diseases and their awareness. However, there is still a need to improve healthy lifestyle practices and awareness through seminars, educational programs, workshops, and health awareness activities.

KEYWORDS: Lifestyle diseases, Knowledge, Attitude, Practice, Awareness, Pharmacy students, Cross-sectional study.

INTRODUCTION

Lifestyle diseases are non-communicable diseases that mainly develop due to unhealthy lifestyle habits such as poor diet, physical inactivity, smoking, alcohol consumption, stress, and inadequate sleep.^[1] These diseases have become a major public health concern worldwide because of their increasing prevalence and associated morbidity and mortality.^[2] Common lifestyle diseases include hypertension, diabetes mellitus, obesity, cardiovascular diseases, respiratory disorders, and stress-related illnesses.^[3]

College students, especially pharmacy students, are more vulnerable to unhealthy lifestyle practices due to academic pressure, irregular food habits, lack of physical

activity, disturbed sleep patterns, and mental stress.^[4] These unhealthy behaviours during student life may continue into adulthood and increase the risk of developing chronic diseases in future.^[5]

Awareness regarding lifestyle diseases and healthy lifestyle practices plays an important role in disease prevention and health promotion.^[6] Pharmacy students, being future healthcare professionals, should possess adequate knowledge and positive attitudes towards healthy lifestyle behaviours in order to educate and guide the public effectively.^[7]

Therefore, the present study was conducted to evaluate the knowledge, attitude, and practice regarding lifestyle

diseases and its awareness among pharmacy college students in a private institution at Cuddalore, Tamil Nadu.^[8]

Furthermore, unhealthy dietary habits, reduced physical activity, smoking, alcohol consumption, excessive screen time, and inadequate sleep are considered major contributing factors for lifestyle diseases among students.^[9] Academic pressure and stress also play an important role in affecting both physical and mental health among college students.^[10] These unhealthy behaviours may negatively influence their quality of life and increase the risk of chronic diseases in future.^[11]

Lifestyle diseases such as hypertension, obesity, diabetes mellitus, cardiovascular diseases, respiratory disorders, and stress-related illnesses are becoming increasingly common among young adults.^[12] Most of these diseases are preventable through proper lifestyle modifications, regular exercise, balanced nutrition, stress management, and health awareness activities.^[13]

Pharmacy students, as future healthcare professionals, should possess adequate knowledge and awareness regarding healthy lifestyle practices in order to educate society effectively.^[14] Assessing the knowledge, attitude, and practice regarding lifestyle diseases among pharmacy students is important for identifying gaps in awareness and promoting preventive healthcare measures.^[15]

AIM AND OBJECTIVES

Aim

The aim of the study is to evaluate the knowledge, attitude, and practice regarding lifestyle diseases and its awareness among pharmacy college students in a private institution at Cuddalore, Tamil Nadu.

OBJECTIVES

1. To examine the knowledge, attitude, and practice regarding lifestyle diseases among pharmacy students.
2. To create awareness regarding lifestyle diseases and healthy lifestyle practices among pharmacy students.

METHODOLOGY

Study site

The study was conducted at Mayor Radhakrishnan College of Pharmacy (MRCP), Cuddalore, Tamil Nadu, India.

Study Design

A Cross-sectional study using questionnaires done in a private institution among pharmacy college students in Cuddalore, Tamil Nadu.

Study Population

Pharmacy students studying at Mayor Radhakrishnan College of Pharmacy and aged above 17 years were included in the study.

Study Method

A self-administered questionnaire was distributed among the pharmacy students to evaluate the knowledge, attitude, and practice regarding lifestyle diseases and its awareness. The questionnaire consisted of demographic details and questions related to knowledge, attitude, and practice towards lifestyle diseases.

Sample size

The sample size was calculated using **RAOSOFT** sample size calculator. A total of 139 pharmacy students were included in the study, among which 128 students agreed to participate in the study.

Statistical Analysis

The collected data were analysed using Statistical Package for Social Sciences (SPSS) software and Microsoft Excel. The values were expressed as percentage and mean values.

The study population included students enrolled in D.Pharm, B.Pharm, and Pharm.D programs at Mayor Radhakrishnan College of Pharmacy, Cuddalore. Random sampling method was used for data collection. The study participants were selected based on consent, educational qualification, gender, and year of study.

RESULTS AND DISCUSSION

Table No. 1: Demographic Details of Consent

All the question from the questionnaire provided the information need to frame the results.

Table No. 1: Consent.

CONSENT	PERCENTAGE (%)
Agree	128 (92%)
Disagree	11 (8%)

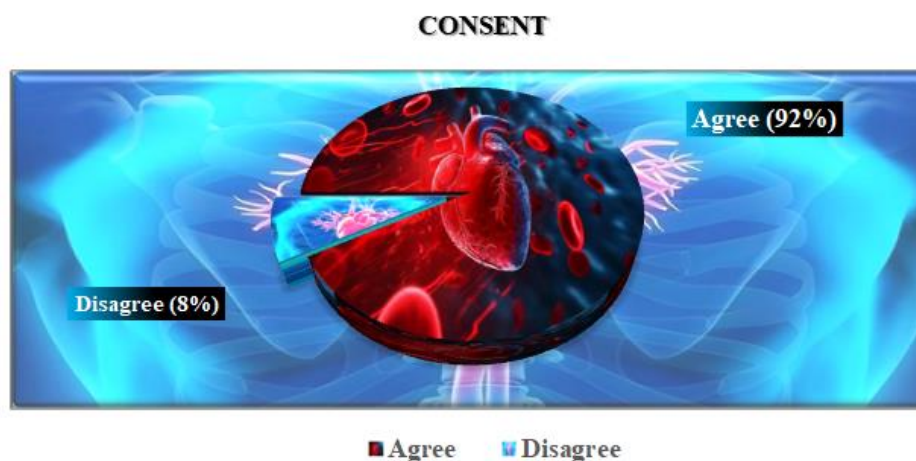


Figure No. 11: Consent.

Figure 11 shows the enrolment of the students. Out of 139 study population only 128 students were agreed to participate for the study.

Table No. 2: Demographic Details of Gender.

GENDER	PERCENTAGE (%)
Male	44 (32%)
Female	95 (68%)

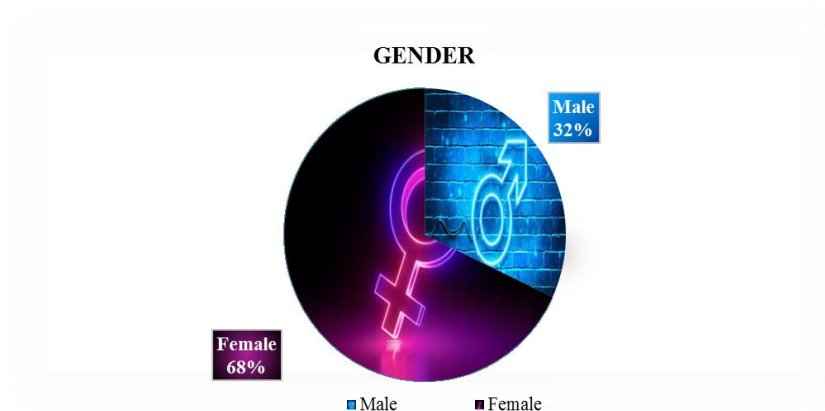


Figure No. 12 – Gender depicts the student’s demographic details.

Figure 12 depicts the student’s demographic details like gender which is obtained from the individual’s self-report from the second section of the questionnaire. Most

of the respondents were Male 44 (32%) and Female 95 (68%) respectively.

Table No. 3: Demographic Details of Educational Qualification.

EDUCATIONAL QUALIFICATION	PERCENTAGE (%)
D.Pharm	29 (21%)
B. Pharm	95 (68%)
Pharm.D	15 (11%)

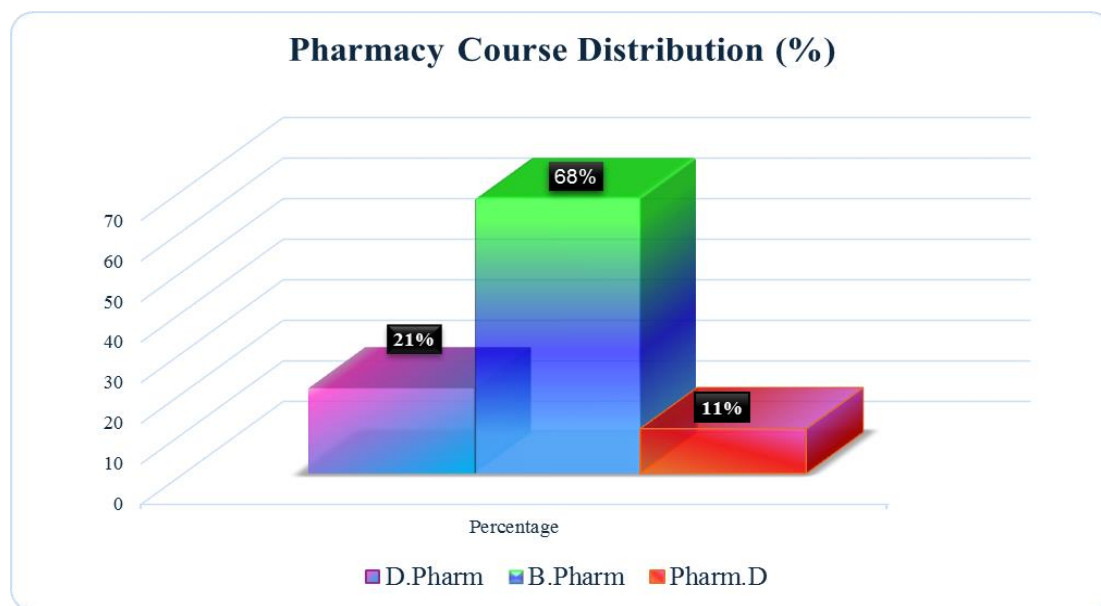


Figure No. 13: Educational Qualification.

Figure 13 depicts the student's demographic details like educational qualification which is obtained from the individual's self-report from the second section of the questionnaire. The degrees of education of these students

were obtained and the number of samples in D.Pharm, B.Pharm and Pharm.D were 29 (21%), 95 (68%) and 15 (11%) respectively.

Table No. 4: Demographic Details of Year of Study.

YEAR OF STUDY	PERCENTAGE (%)
I YEAR	0%
II YEAR	72 (52%)
III YEAR	39 (28%)
IV YEAR	28 (20%)

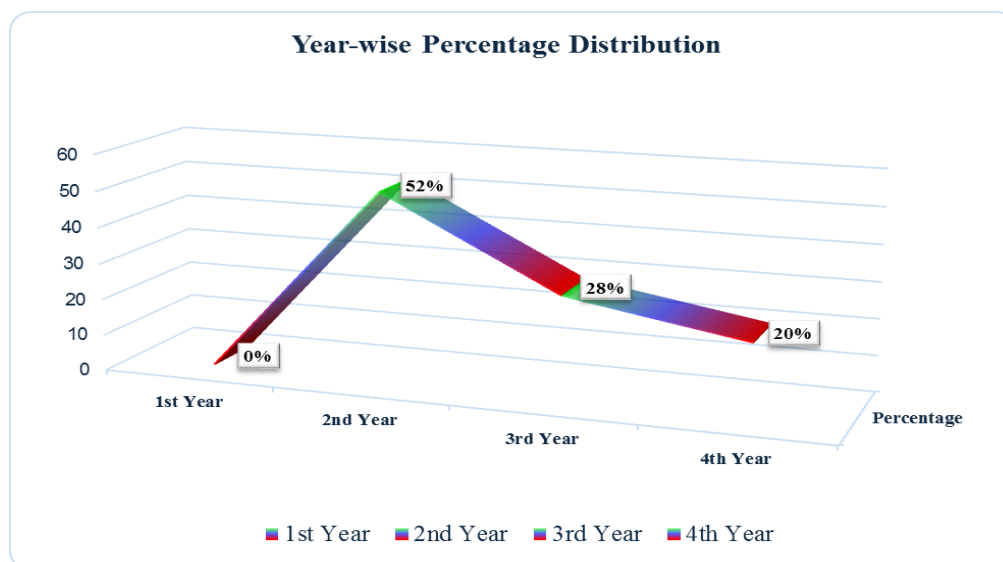


Figure No. 14 - Year of study.

Figure 14 depicts the student's demographic details like year of study which is obtained from the individual's self-report from the second section of the questionnaire. The year of study were obtained, and the number of 1st year students were 0 (0%), 2nd year students were 72

(52%), 3rd year students were 39 (28%), and 4th year students were 28 (20%) respectively.

Table No. 5: Knowledge Towards Lifestyle Diseases.

S.NO	QUESTIONS	NUMBERS	PERCENTAGE %
1.	Have you heard about lifestyle diseases a) Yes b) No	123 16	88% 12%
2.	What is the major cause of most lifestyle disease a) Genetic disorder b) Infection c) Sedentary behaviour d) Unhealthy habits & routines	18 10 24 87	13% 7% 17% 63%
3.	The term "Lifestyle disease" was coined due to disease linked with a) Genetic b) Poor Sanitation c) Unhealthy habits & routines	18 38 83	13% 27% 60%
4.	Which of the following is not considered a lifestyle disease a) Type-II diabetes b) Cancer c) Infection d) Hypertension	65 13 22 39	47% 9% 16% 28%
5.	Which factor contributes most to lifestyle diseases a) Bacterial Infection b) Heredity c) Poor diet & physical inactivity d) Vaccination failure	9 14 112 4	6% 10% 81% 3%
6.	Which age group is increasing at risk of lifestyle disease a) Infants b) Teenagers and adults c) Elderly d) Toddlers	6 105 24 4	4% 75% 17% 4%
7.	Which of the following is a lifestyle disease a) Hypertension b) Insomnia c) Diabetes d) All the above	11 7 9 112	8% 5% 6% 81%
8.	What is a common lifestyle disease among youth a) Depression b) Obesity c) Anxiety d) Insomnia	22 87 17 13	16% 62% 12% 9%
9.	Which factor is protective against lifestyle diseases a) Avoid smoking b) Reduced Sedentary Lifestyle c) Balanced diet d) All the above	7 9 11 112	5% 6% 8% 81%
10.	Which is not a component of a healthy lifestyle a) Regular exercise b) Junk food consumption c) Adequate sleep d) Stress management	5 113 9 12	3% 82% 6% 9%
11.	Which lifestyle habit can damage mental health a) Unhealthy diet b) Excessive screen time c) Inadequate sleep d) All the above	7 9 11 112	5% 6% 8% 81%
12.	A sedentary lifestyle increases the risk of a) Hair fall b) Weak eyesight c) Lifestyle disease like obesity & diabetes	2 4 10	1% 3% 7%

	d) All the above	123	88%
13.	Sedentary lifestyle refers to		
	a) Inactive Lifestyle	4	3%
	b) Infrequent exercise	2	1%
	c) Less physical activity	10	7%
	d) All the above	123	88%
14.	Stress can contribute to which lifestyle disease		
	a) Insomnia	11	8%
	b) Depression	7	5%
	c) Hypertension	9	6%
	d) All the above	112	81%

Table No. 6: (Count) Hypothesis Testing.

Have you heard about lifestyle disease	Genetic disorder	Infections	Sedentary behaviour	Unhealthy habits & routines	Total
Yes	12	4	20	87	123
No	6	6	4	0	16
Total	18	10	24	87	139

Table No. 7: (Chi-Square Tests).

Test	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	21.46	3	0.000
Likelihood Ratio	19.82	3	0.000
Linear-by-Linear Association	10.13	1	0.001
N of Valid Cases	139		

Based on the hypothesis testing for the study of Knowledge, Attitude and Practice (KAP) on Lifestyle Diseases among the respondents.

Knowledge (Awareness about Lifestyle Disease and Perception of Major Causes)

- The null hypothesis is rejected. There is a statistically significant association between

awareness of lifestyle diseases and the perceived major causes of lifestyle diseases (p value = 0.000).

- The alternate hypothesis is accepted. There is a statistically significant association between awareness of lifestyle diseases and the perceived major causes of lifestyle diseases.

Table No. 8: Attitude Towards Lifestyle Diseases.

S.NO.	QUESTIONS	NUMBERS	PERCENTAGE%
15.	Do you believe that managing stress levels is critical component of preventing chronic lifestyle disease		
	a) Agree	119	86%
	b) Disagree	20	14%
16.	Do you believe that diabetes can be managed or prevent through lifestyle changes		
	a) Agree	99	71%
	b) Disagree	40	29%
17.	Do you believe that lifestyle modification (diet and exercise) can reverse prediabetes		
	a) Agree	109	78%
	b) Disagree	30	22%
18.	Do you believe that social networks can influences people's health, both positively and negatively		
	a) Agree	123	88%
	b) Disagree	16	12%
19.	Do you believe that proper individual habits (daily bathing, brushing teeth, sleep routines etc) are sufficient to prevent disease		
	a) Agree	58	42%
	b) Disagree	81	58%

Table No. 8 shows the attitude of pharmacy students about lifestyle disease and its Awareness. Which is obtained from the individual's self-report from the third

section of the questionnaire. The data were collected by self-administered questionnaire of 31 items into 4 domains.

Table No. 9: Practice Towards Lifestyle Diseases.

S.NO.	QUESTIONS	NUMBERS	PERCENTAGE%
20.	Have you taken any steps to prevent lifestyle disease		
	a) Yes	94	68%
	b) No	45	32%
21.	What is the key to managing both lifestyle disease and stress		
	a) Meditation	22	16%
	b) Early intervention	14	10%
	c) Healthy lifestyle	88	63%
	d) Exercise regularly	15	11%
22.	How many days a week do you engage in at least 30 minutes of moderate-intensity physical activity		
	a) 0-day	7	5%
	b) 1-2 days	12	9%
	c) 3-4 days	55	39%
	d) 5-7 days	65	47%
23.	How often do you consume processed food or sugary drinks		
	a) Daily	45	32%
	b) 3-4 times	69	50%
	c) Rarely	11	8%
	d) Never	14	10%
24.	How many serving of fruits and vegetables do you consume daily		
	a) None	7	5%
	b) 1 serving	62	45%
	c) 2-3 serving	59	42%
	d) 5 or more serving	11	8%
25.	How often do you consume fast food or deep-fried food		
	a) Daily	24	17%
	b) 2-3 times a week	84	60%
	c) Rarely	19	14%
	d) Never	12	9%
26.	If you have been diagnosed with a lifestyle disease (e.g. Diabetes/ Hypertension, how do you manage your Medication?		
	a) I take it only when I feel symptoms	16	11%
	b) I frequent skip doses	9	7%
	c) I take it regularly as prescribed	114	82%
	d) I have stopped taking medication	0	0%

Table No. 9 shows the Practice of pharmacy students about lifestyle diseases and its Awareness. Which is obtained from the individual's self-report from the Fourth section of the questionnaire. The data were collected by self-administered questionnaire of 31 items into 4 domains.

CONCLUSION

The present study concludes that pharmacy students possess adequate knowledge, positive attitude, and good practice regarding lifestyle diseases and their awareness. The study findings revealed that most of the students were aware of the causes, risk factors, prevention, and healthy lifestyle practices related to lifestyle diseases. However, there is still a need to improve awareness regarding healthy dietary habits, physical activity, stress management, and disease prevention through seminars,

workshops, educational programs, and health awareness activities. Promoting healthy lifestyle practices among pharmacy students may help in reducing the risk of lifestyle diseases and improving overall health and wellbeing.

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