

## Study Of Lifestyle Disease Risk Factors Among Nurses Working In Selected Hospital In Kerala.

Sonya Godwin<sup>1</sup>, Surya Godwin<sup>2</sup>

<sup>1</sup>(Professor, Athena Institute of nursing/ no 75, Kannur, Hobli, Bengaluru-562149, Karnataka, India)

<sup>2</sup>(Lecturer, CSI school of nursing, Kundra, Kollam, Kerala)

### Abstract:

**Background:** The rising burden of preventable risk factors for life style diseases among health care workers is a major public health challenge worldwide. This study was conducted to identify the risk factors for life style diseases among nurses. This study aimed at assessing the lifestyle disease risk factors among nurses in selected hospital Kerala. **Aims:** This study aimed at assessing the lifestyle disease risk factors among nurses in selected hospital Kerala

**Materials and Methods:** This cross-sectional study was undertaken amongst nurses working at LMS hospital, Kundra, Kerala, CSI hospital Kerala using purposive sampling. The nurses were surveyed through a self-administered questionnaire after taking consent from hospital authority. Dietary practices, physical activity, tobacco and alcohol use, sleeping pattern were assessed. Blood pressure and body mass index were measured. The data was analyzed using SPSS software.

**Results:** Out of a total 215 samples, majority (81%) was females and was Hindus (70%). Majority of the participants (86%) were residing in urban area. Of all the respondents 9% were currently smoking. Although the past smoking rate was 11%. Also, none of the participants were currently using smokeless tobacco. While 3% used smokeless tobacco in the past. In the past 30 days 11% had consumed alcohol and 25% had consumed alcohol in the past. Only 29% were consuming fruit regularly. While 81% consuming vegetables at least 3-7 days/week. Nearly 87% consumed fried food items at least 3-6 times a week. While 7% consumed sweet food items more than 2 serves a day. Also 87% added 1-3 teaspoon sugar daily in hot drinks. While 88% added extra salt to cooked food items. 1% consumed 3-4 litres of soft drinks per week. Although 42% drink more than 1.25 litres of water in a day. Only 6% involved in regular physical exercises at least 30 minutes. While 77% sleeps 5-6 hours per night.

**Conclusions:** Adoption of healthy lifestyles by all nurses is critical for the prevention of lifestyle diseases.

**Key Word:** Nurses; Lifestyle diseases; Risk factors.

Date of Submission: 01-06-2023

Date of Acceptance: 10-06-2023

### I. Introduction

The diseases which primarily arise from the abnormal lifestyle of a person are termed as “lifestyle diseases” and these are also known as Non communicable diseases (NCDs). Changing lifestyle patterns increase behavioural, psychological and biological risk factors for developing NCDs<sup>1</sup>. World Health Organization (WHO) states that cardiovascular diseases, stroke, obesity, cancer, diabetes, respiratory disease account for 60 % death per year globally<sup>2</sup>. According to the WHO fact report 2018, the non-communicable diseases caused 41 million deaths each year, as per them that is equivalent to 71 % of global deaths. Lifestyle disorders are the largest and the leading cause of death in developing countries. Ischemic heart disease is the most common lifestyle disorder which accounts for 30 % death globally and nearly 80 % death took place in low and middle-income countries like India<sup>3</sup>. The chronic diseases are mainly being caused by a small number of shared risk factors: improper diet, inadequate physical activity, tobacco use and excessive alcohol consumption<sup>4</sup>. Nurses constitute an important segment of public health care. They have good access to information on disease frequency and determinants. Therefore, knowledge and awareness regarding the health consequences of lifestyle changes are generally expected to be high among nurses<sup>4</sup>. This in turn could influence the prevalence of lifestyle diseases such as diabetes and hypertension and CVD s among them. There is a paucity of data on the lifestyle-associated disorders among nurses particularly in developing countries. WHO recommended nurse-population ratio is 2.2:1000 while the current nurse-population ratio in India is 1.05/1000<sup>5</sup>. This puts a lot more stress and burden on the health of

the doctors and nurses. Therefore, the present study was conducted to assess the prevalence of behavioural risk factors for lifestyle diseases among nurses working in selected hospital in Kerala.

## II. Material And Methods

This hospital-based cross-sectional study was carried out on nurses at LMS hospital, Kerala CSI hospital, Kundra, Kollam, Kerala. Hospital from October 2022 to December 2022. A total 215 nurses (both male and females) were for in this study.

**Study Design:** cross-sectional study

**Study Location:** LMS hospital, CSI hospital, Kundra, Kollam, Kerala

**Study Duration:** from November 2022 to December 2022

**Sample size:** 215 staff nurses.

**Sampling Ttechnique:** Non probability convenient sampling technique

**Subjects & selection method:** The study population was drawn from nurses who presented to LMS hospital, Kerala and CSI hospital, Kundra, Kollam, Kerala.

### Inclusion criteria:

1. All the nurses in any ward of the hospital who were working in this hospital
2. Either sex
3. Aged  $\geq 18$  years
4. Nurses who are interested and signed the consent form

### Exclusion criteria:

1. Interns, doctors and pharmacist
2. Nurses taking concurrent corticosteroids, or hormone replacement therapy.

### Procedure methodology

After written informed consent was obtained, a well-designed questionnaire was used to collect the data. For physical examination, standardized calibrated mercury column type sphygmomanometer; stethoscope, common weighing machine and measuring tape were used. After the completion of the questionnaire, weight and height measurement was carried out of each participant. Weight was measured bare footed and light clothes using a digital weighing machine and to the nearest 0.05 kg. Height was measured to the nearest 0.5 cm by using portable height meter after removing shoes, and placing heels together. Outcome variable was obesity defined by using South Asian cut-off of body mass index (BMI >23) [6] Body Mass Index was calculated as weight in kilograms divided by weight in meters squared. Based on their BMI, individuals were classified into (18.5-23.0 (normal) >23.0 (overweight and obese) <18.5 (undernourished).

### Statistical analysis

Data entry and statistical analysis were performed using the Microsoft Excel and SPSS windows version 14.0 software. Prevalence rates were given as percentages.

## III. Result

Out of a total 215 samples, majority (81%) was females and was Hindus (70%). Majority of the participants (86%) were residing in urban area. (Table I).

Table no 1 Shows Distribution of nurses according to gender, religion and residence

**Table no 1:** Shows Distribution of nurses according to gender, religion and residence

Characteristics	Total No. Studied (%)
<b>Gender</b>	
Male	40 (19%)
Female	175 (81%)
<b>Religion</b>	
Hindus	150 (70%)
Christians	28 (13%)
Others	37 (17%)
<b>Residence</b>	
Urban	185 (86%)
Rural	30 (14%)

Table no 2: Records the Body Mass Index of the study group. The prevalence of overweight and obesity among nurses was 66%

**Table no2:** Records the Body Mass Index of the study group.

BMI	Nurses (n=215) (n, %)
18.5 -23.0 (normal)	65 (30%)
>23.0(over weight and obese)	142 (66%)
< 18.5 (under nourished)	8 (4%)

Table no3: Shows Prevalence of lifestyle disease risk factors among the study population. Of all the respondents 9% were currently smoking. Although the past smoking rate was 11%. Also, none of the participants were currently using smokeless tobacco. While 3% used smokeless tobacco in the past. In the past 30 days 11% had consumed alcohol and 25% had consumed alcohol in the past. Only 29% were consuming fruit regularly. While 81% consuming vegetables at least 3-7 days/week. Nearly 87% consumed fried food items at least 3-6 times a week. While 7% consumed sweet food items more than 2 serves a day. Also 87% added 1-3 teaspoon sugar daily in hot drinks. While 88% added extra salt to cooked food items. 1% consumed 3-4 litres of soft drinks per week. Although 42% drink more than 1.25 litres of water in a day. Only 6% involved in regular physical exercises at least 30 minutes. While 77% sleeps 5-6 hours per night.

**Table no 3:** Shows Prevalence of lifestyle disease risk factors among the study population

Risk factors	male	Female	Total	P- value
Do you currently smoke, such as cigarettes, cigars or pipes?				
No	20	175	195	$\chi^2=74.22$ < 0.00001
Yes	18	2	20	
Do you currently use any smokeless tobacco, such as pan masala, Gutkha, khaini?				
No	16	175	191	$\chi^2=84.67$ < 0.00001
Yes	21	3	24	
Have you ever used smokeless tobacco?				
No	36	175	209	$\chi^2=9.41$ 0.0021
Yes	4	2	6	
Have you ever consumed an alcoholic drink such as beer, wine, spirits?				
No	9	152	161	$\chi^2=71.69$ < 0.00001
Yes	31	23	54	
Have you consumed alcoholic drink within the past 30 days?				
No	17	170	187	$\chi^2=85.82$ < 0.00001
Yes	23	5	28	
In a typical week, on how many days do you eat fruits?				
Every day	20	42	62	$\chi^2=12.306$ .0021
1-3 days	15	116	131	
4-6 days	5	17	22	
In a typical week, on how many days do you eat vegetables?				
1-2 days	14	26	40	$\chi^2=8.72$ .0031
3-7 days	26	149	175	
In a typical week how often do you usually eat fried foods?				
Less than once a week	1	1	2	$\chi^2=16.47$ .00026
1-2 times a week	12	14	26	
3-6 times a week	27	160	187	
How many servings of sweet foods like cakes, biscuits, lollies and/or chocolate do you consume a day?				
Usually, one	30	137	167	$\chi^2=1.0131$ .6025
1-2 serves	8	25	33	
More than 2 serves	2	13	15	
How many teaspoons of sugar do you consume daily in hot drinks, added to foods, etc.?				
0	7	3	10	$\chi^2=18.298$ .00010
1-3 teaspoon	30	157	187	
4-6 teaspoon	3	15	18	

Do you add extra salt to the food items while eating?				
No	25	165	190	$\chi^2=32.01$ < 0.00001
Yes	15	10	25	
How much soft-drink do you consume on average in a week?				
Less than 500 ml/week	9	157	163	$\chi^2=83.832$ < 0.00001
1-2 litres /week	30	17	47	
3-5 litres/ week	1	1	2	
How much water do you drink a day?				
100ml-500 ml	10	36	46	$\chi^2=7.624$ .02209
501ml- 1500 ml	21	59	80	
More than 1500ml	9	80	89	
In a week, how many days do you do regular physical activities for 30 minutes?				
0 -2 days	35	174	209	$\chi^2=17.077$ .000036
3-7 days	5	1	6	
How many hours of sleep do you have on average per night?				
5-6 hours	31	135	166	$\chi^2=0.0154$ .99232
7-8 hours	8	35	43	
More than 8 hours	1	5	6	

#### IV. Discussion

A high percentage of nurses were found to be overweight and obese. In spite of being the health guide to others, health professionals themselves are falling into unhealthy population group and hence getting predisposed to the development of chronic lifestyle diseases. Nurses and other health care professionals are a respected source of health-related information and are well positioned to provide preventive health counselling to patients<sup>7, 8</sup>. The present study assessed modifiable risk factors like tobacco use, alcohol intake, physical activity and dietary habits, sleeping pattern among nurses. It showed that the occurrence of life style diseases among nurses is high. The findings are similar to another study by Sharma, et al<sup>7</sup>.

#### V. Conclusion

A high percentage of nurses were found to be overweight and obese. Thus, encouraging healthy-lifestyles among them would result in more likelihood of them providing preventive and health promotive counselling to their patients<sup>8</sup>

#### References

- [1]. King H, Aubert RE, Herman W. Global burden of diabetes,1995-2025: prevalence, numerical estimates and projections. Diabetes care.1998;21(1) 414-31.
- [2]. Habib SH, Saha S. Burden of non-communicable disease: global overview. Diabetes & Metabolic Syndrome: Clinical Research & Reviews 2010;4(1):41-7.
- [3]. Upadhyay RP. An overview of the burden of non-communicable diseases in India. Iran J Public Health 2012;41(3):1-8.
- [4]. Lifestyle Diseases: Health Systems Approaches. Geneva: Report of the Commonwealth Health Ministers' Meeting; 13 May, 2007.
- [5]. High Level Expert Group Report on Universal Health Coverage for India: Planning Commission of India.New Delhi; November, 2011. Available from: [http://www.planningcommission.nic.in/reports/genrep/rep\\_uhc0812.pdf](http://www.planningcommission.nic.in/reports/genrep/rep_uhc0812.pdf). [Last cited on 2015 Jan 22].
- [6]. Snehaltha C, Viswanathan V, Ramachandran A. Cutoff values for normal anthropometric variables in Asian Indian adults. Diabetes Care 2003; 26:1380-4.
- [7]. Sharma S, Anand T, Kishore J, Dey BK, Ingle GK. Prevalence of modifiable and non-modifiable risk factors and lifestyle disorders among health care professionals. Astrocyte 2014; 1:178-85.
- [8]. Bisoi S, Chattopadhyay D, Bhattacharya N, Roy S, Pal B, Biswas B. A study on cardiovascular risk factors among care-providers of an apex hospital of Kolkata. J Indian Med Assoc 2011; 109:623-6.