

Vol 4 Issue 12 Jan 2015

ISSN No : 2230-7850

International Multidisciplinary
Research Journal

*Indian Streams
Research Journal*

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RNI MAHMUL/2011/38595

ISSN No.2230-7850

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PREVALENCE OF CARDIOVASCULAR PROBLEMS IN URBAN AND RURAL POPULATION

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Abstract:-Life style diseases, especially cardiovascular account for 53% and 44% of all deaths and disability (WHO 2005) Cardiovascular disease are the class of diseases that involves the heart or blood vessels (Maton & Anthea 1993). The disease which affects the cardiovascular system of the human being. Obesity and diabetes millitus are often linked to cardiovascular disease. (Bhal Prabhakaran & Karthi Karyan 2001). Unhealthy diets and physical inactivity use of tobacco, smoking, overweight & obesity high blood pressure high cholesterol level in the blood are the leading & major causes of life style diseases (Bonita R 2001 Prabhakarm Karthikeyan 2001, WHO 2004, Bahl, Reddy Shah, Varghese, Ramadass 2005)

Keywords: Cardiovascular Problems , Unhealthy diets and physical inactivity .

INTRODUCTION

It is necessary to identifying and modifying these risk factors & needful action for their prevention and control in various settings (WHO 2004). Therefore, the present study was planned to identify the prevalence of cardiovascular patient in middle income group of rural and urban population of Beed District.

OBJECTIVES

- 1) To know the socioeconomic status of Cardiac patient.
- 2) To study the health problems of cardiac patient.
- 3) To find out the major risk factors associated with CVD disease.
- 4) To impart the prevention & control of CVD in various setting.

METHODOLOGY

Three hundred samples between the age of 25-60 years and middle income group were selected randomly from the urban & rural population of Beed District. The following methods were used for data collection.

- 1) Socioeconomic & Dietary Profile.
- 2) Anthropometric measurement.
- 3) Biochemical estimation.

The result of the study revealed that maximum no i.e about 15.33% urban samples & 13.33% rural samples in the age of 40-45 years were having cardiac problems. It may be due to the burden of work & environmental pollution, and highly intake of fat in their daily diet. The urban & rural samples were having monthly income ranged 5000/- to 15000/- and having good living standard. The consumption of smoking / rolled tobacco was found 54% in urban and 46% in rural samples. About 48% of urban and 52% of rural samples was having the habits of alcohol

consumption. Dietary and physical activity pattern and past history of hypertension and diabetes of urban samples was found higher as compared to rural samples.

ANTHROPOMETRIC MEASUREMENTS

Anthropometric measurements like weight, height, waist circumference and hip girth were note down. The prevalence of obesity in the study samples was 60% and BMI was high in urban samples than rural one. The results of the present study corroborate with the prevalence of obesity in India as depicted by WHO / SEAR-NCD profile (WHO2003). The result of study shows that the prevalence of risk factors like high abdominal obesity is present in both urban & rural samples, Similar to South Asian studies. (Gupta, Sarina & Bhatbagar 2002)Low intakes of nutrients were found in the daily diet of rural &urban samples.

BIOCHEMICAL MEASUREMENT

The Cholesterol and blood sugar level of the subject were present in the table no. 5 show that 68% of the samples were having blood cholesterol level above 200 mg/dl, whereas 32% of the samples were having blood cholesterol level below 200 mg/dl. The prevalence of diabetics (fasting blood sugar level = 125 mg/dl) was found 15.5%, whereas 84.5% subjects were having normal sugar level, because of they had taken medicine regularly.

It was noted that the risk factors of CVD were quite high in urban than rural population and subjects were being affected in their peak productive years of life.

Thus the study concluded that poor awareness among productive population is the main risk factor for CVD problems. Therefore it is necessary to take interest & efforts to remove this problem from our society.

Table No. 1
Age distribution of urban and rural cardiac patient:

Age	Urban Samples		Rural Sample	
	Total no of sample	Percent	Total no of sample	Percent
25-30	10	3.33	08	2.66
30-35	18	6.00	10	3.33
35-40	38	12.99	27	9.00
40-45	46	15.33	40	13.3
45-50	20	6.66	30	10.00
50-55	15	5.00	12	4.00
55-60	15	5.00	17	4.00

Table no 2: Clinical problems of urban and rural samples:

Clinical problems	Urban Sample		Rural Sample	
	Total no of sample	Percent	Total no of sample	Percent
Obesity	40	13.33	36	12.00
Tiredness	30	10.00	32	10.66
Breathlessness	30	10	22	7.33
Swelling	10	3.33	22	7.33
Normal	30	10.00	22	7.33

Table No.3
Percentage Distribution of Risk factors in Urban & Rural samples.

Risk Factors	Urban Subject		Rural Subject	
	(n = 150)	Percen-tage	(n = 150)	Percen-tage
Low intake of fruits & vegetable	100	66.66	117	78.00
Low Physical activity	120	80.00	90	60.00
History of Hyper tension	100	66.66	125	83.33
Alcohol Consumption	115	76.66	130	86.66
Tobacco Consumption	99	66.00	120	80.00
History of Diabetes	103	68.66	105	70.00

Table No. 4
Anthropometric Measurements:

Particular	Urban		Rural	
	(n = 150)	Percentage	(n = 150)	Percentage
Over weight	53	35.33	45	30.00
Obese	90	60.00	80	53.33
Under weight	0.7	4.66	25	16.66

Over weight = High BMI > 23 Kg/m²
 High BMI = > 23 Kg/m²
 Obese = BMI > 30 gm/m²
 (According to WHO Classification)

Table No. 5
Percentage Distribution of Cholesterol & Sugar level :-

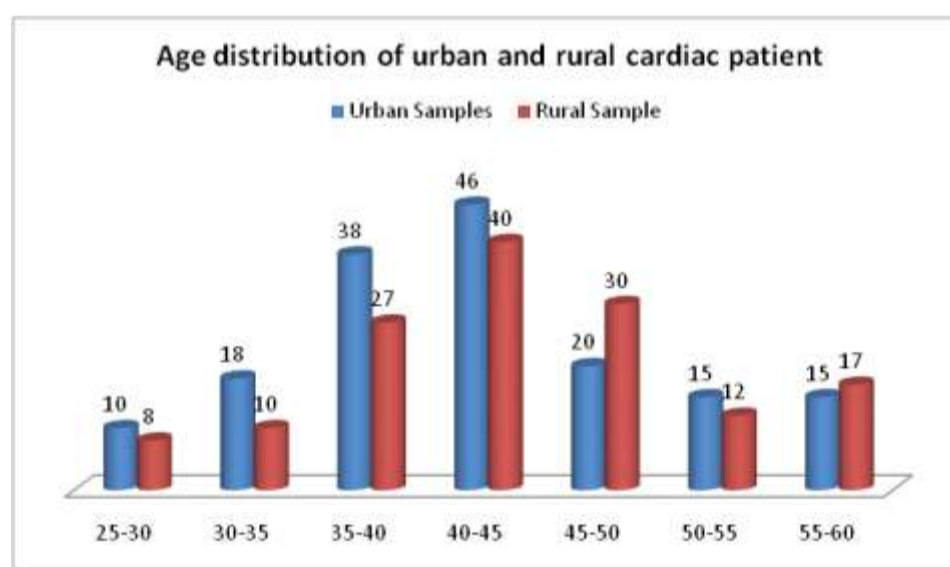
Test	Urban		Rural	
	High	Normal	High	Normal
Blood Cholesterol Level	68% (102)	0.32% (48)	73.33% (110)	40% (26.66)
Blood Sugar	32% (21.33)	78.66% (118)	30% (20)	80% (120)

Table No. 6
Nutrient intake of Rural & Urban Sample

Nutrients	RDA by ICMR For Adult (Sed)	Rural Present Study	Urban Present Study
Protein (Gm)	55	(6.0) 49	(3.8) 51.20
Calories (Kcal)	2800	(-740) 2060	(585) 2215
Calcium (mg)	500	(115) 385	(85) 415
Iron (mg)	24	(2.082) 21.60	(4) 20.01
Vit A. (mg)	750	(105) 645	(97) 653
Vit B ₁ (mg)	1.2	(1.10) 1.02	(.24) 0.96
Vit B ₂ (mg)	1.4	(0.45) 0.95	(0.3) 1.10
Vit B ₃ (mg)	16.0	(4.25) 11.75	(3.37) 12.63
Vit C (mg)	40	(3.93) 36.07	(1.96) 38.04

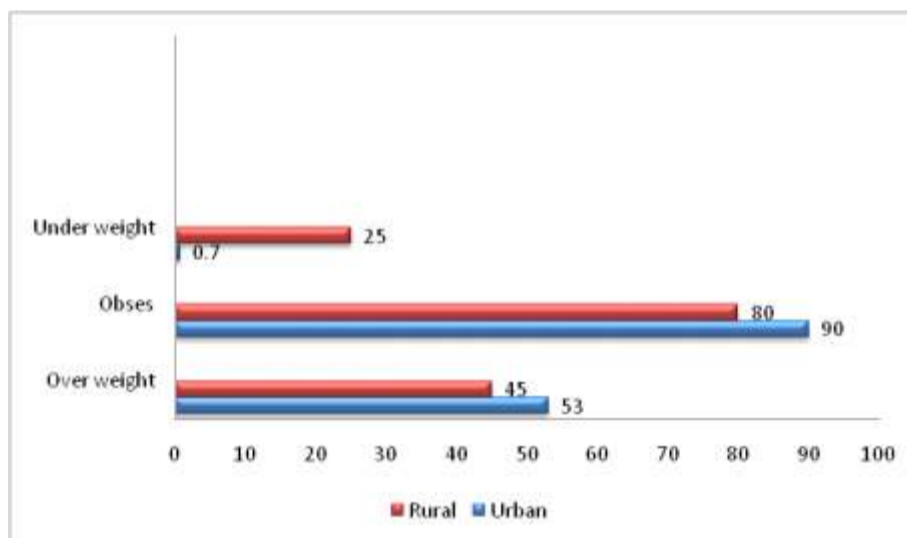
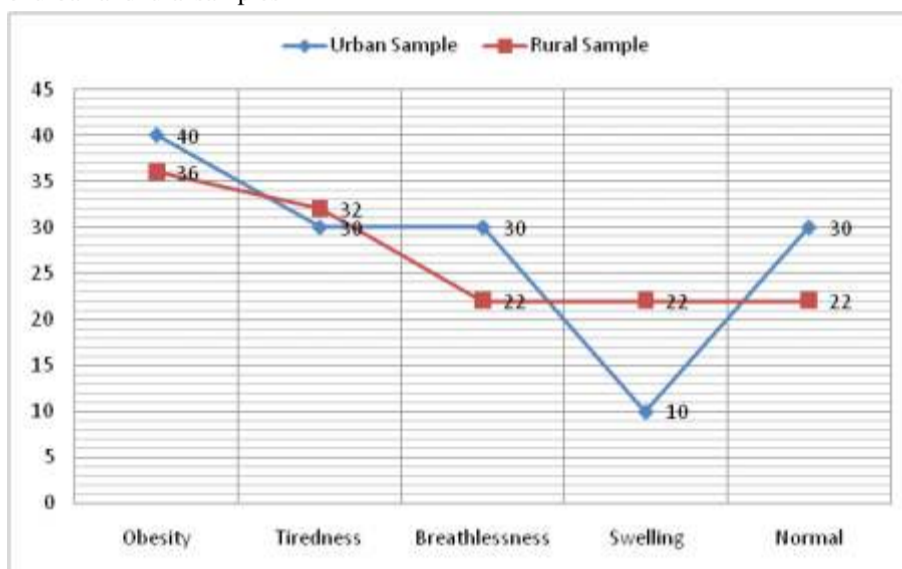
Table No. 7
Comparison of Nutrient intake of Rural & Urban Samples

Nutrient	Mean – S.d.	+ Value
Protein		
Rural		1.43
Urban	49.21 – 1.03	2.01
Iron		
Rural	20.95 – 12.73	3.21
Urban	20.63 – 16.01	2.13
Calcium		
Rural	335.85 – 16.21	2.68
Urban	406.95 – 18.31	3.08
Vit C		
Rural	36.16 – 0.37	2.88
Urban	38.15 – 1.23	2.95

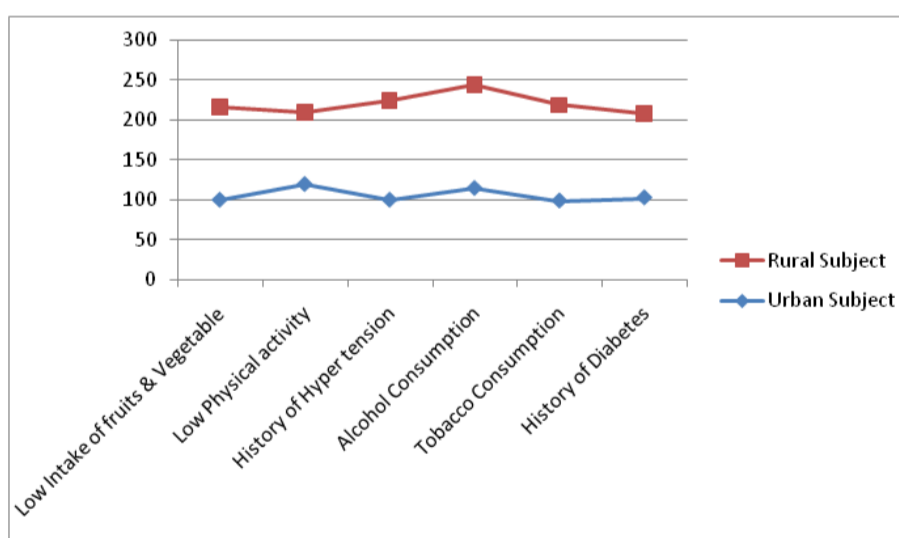


Prevalence Of Cardiovascular Problems In Urban And Rural Population

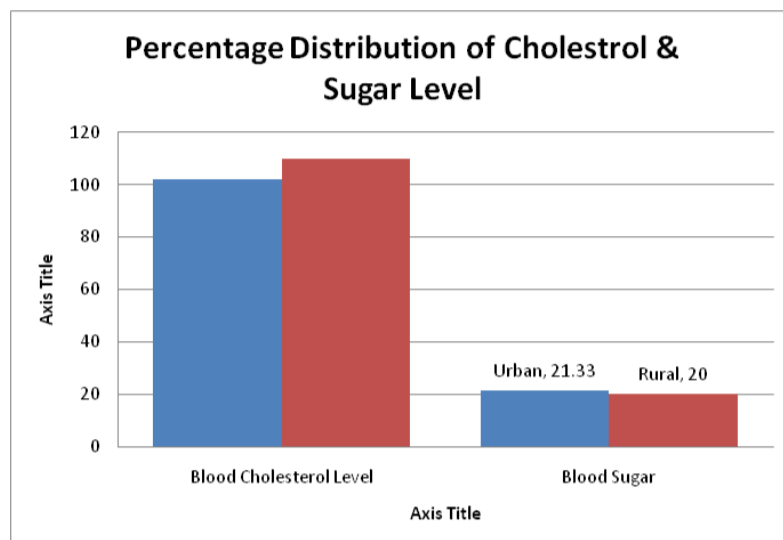
Clinical problems of urban and rural samples



Anthropometrical measurement of urban and rural samples:



Percentage Distribution of risk factors in urban and rural samples



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