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Research Article

PREVALENCE OF HYPERTENSION AMONG THE WOMEN IN COASTAL AREAS AND NON COASTAL AREAS

Katari Kantha¹, Arumugam Indira² and Subhashini N³

¹Department of Community Health Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India

^{2,3}Department of Medical and Surgical Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India

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ABSTRACT

Background: Women are largely overlooked in studies on disease as they are at a low risk of developing the disease. The present study on prevalence and socio-demographic variables provide the insight required to develop interventional strategies.

Aim: to assess the prevalence of hypertension among women.

Setting and Design: The study was conducted in coastal areas and non coastal areas by using a descriptive design.

Materials and Methods: A total of 514 samples were included in this study. Among this, 220 samples belongs to coastal areas and 294 samples belongs to non coastal areas by using convenience sampling technique.

Statistical Analysis Used: The collected data was organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics based on the objectives of the study.

Results: In Coastal areas, Out of 220 samples, With regard to the category of the blood pressure 57(25.91%) had normal blood pressure, 111(50.45%) had pre hypertension, 35(15.91%) had stage-I hypertension, 17(7.73%) had stage-II hypertension. In non coastal areas, among 294 samples, 112(38.10%) had normal blood pressure, 103(35.03%) had pre hypertension, 61(15.91%) had stage-I hypertension and 18(6.12%) had stage-II hypertension.

Conclusion: The above results shown that stage-I values are high in the non coastal areas than coastal areas but pre hypertension is higher in coastal areas than non coastal areas.

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INTRODUCTION

Over the last few decades, hypertension has emerged as a major public health problem worldwide and has also been identified as the most common potential risk factor for cardiovascular diseases.¹ The estimates released the World Health Organization revealed that globally in excess of 33% of adults aged 25 years and above are suffering from hypertension, and even accounts for 9.4 million deaths attributed to cardiovascular diseases on an annual basis.² In fact, the recent projection suggests that if no active interventions are performed, almost 23 million cardiovascular diseases can result only because of hypertension by the year 2030, of which about 85% persons will be from developing nations.² Even the epidemiological studies have indicated rising prevalence of hypertension in both rural and urban settings of India.^{3,4}

Kantha, K and Indira, A. (2015) conducted a cross sectional study on prevalence of hypertension among the adults in coastal and non coastal areas. A total of 5000 samples were included in the study. In that 2500 samples belongs to coastal areas and 2500 samples belongs to non coastal areas. The prevalence of stage-I hypertension in coastal areas is 460(18.4%) but in non coastal areas it is 1413(56.50%). The results indicate that there is high prevalence of hypertension in non coastal areas than coastal areas⁵. Arumugam Indira *et al.* (2015) conducted a study on prevalence of prehypertension among the adults in coastal and non coastal areas. The study results shown that regarding prehypertension in SBP, in coastal areas 1129(45.16%) and in non coastal areas 971(38.84%). The results indicate that there is high prevalence of pre hypertension in coastal areas than non coastal areas. Further studies are needed to find out the reasons and measures to control high blood pressure is necessary⁶. Even today there is scarcity of the studies in coastal and non coastal areas of India.

*Corresponding author: **Katari Kantha**

Department of Community Health Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India.

With this background, present study has been undertaken to study the prevalence of hypertension.

Objectives of the Study

- To assess the prevalence of hypertension among women of coastal and non coastal areas.
- To identify the risk factors of hypertension among women of coastal and non coastal areas.
- To compare the prevalence of hypertension between coastal and non coastal areas.
- To find association between the prevalence of hypertension with selected socio demographic variables.

Detailed research plan

Research approach: Quantitative Approach.

Research design: Descriptive design.

Research setting: The study was conducted in selected coastal and non coastal areas at Nellore.

- The study was conducted at two parts (1) coastal areas: out of 19 areas 10 areas are selected by lottery method.
- (2) non coastal areas: out of 22 areas 10 areas were selected by the lottery method.
- coastal areas like: Kotha koduru, Mypadu, Mahalakshmi puram, Pallepalem, Kudithi palem, Indukur pet, Varukavi padu, Koruturu, Legunta padu, Komarika.
- Non coastal areas: Papi reddy palem, Allipuram, Pallipadu, Mudivarthi, Kakupalem, Inamadugu, Kovur, Vidavaluru, Utukuru, and Vavilla.

Sampling Technique: Convenience sampling technique

Sample Size: A total of 514 samples were included in this study, among this, 220 samples belong to coastal areas and 294 samples belong to non coastal areas by using convenience sampling technique.

Table No.1 Frequency and Percentage Distribution of Socio Demographic Variables among Women in Coastal and Non Coastal Areas

(N= 514)

DEMOGRAPHIC VARIABLE	COASTAL N=220		NON COASTAL N=294	
	(f) N=220	(%)	(f) N=294	(%)
Age				
a.21-30 years	36	16.36	63	21.43
b.31-40 years	35	15.91	61	20.75
c.41-50 years	57	25.91	62	21.09
d.50 and above	92	41.82	108	36.73
Education				
a. Illiterate	132	60.00	174	59.18
b. Primary education	52	23.64	65	22.11
c. Secondary education	21	9.55	37	12.59
d. Inter mediate	6	2.73	11	3.74
e. Degree and above	9	4.09	7	2.38
Age at menarche				
a. Less than 10y	28	12.73	52	17.69
b. 11-13y	135	61.36	192	65.31
c. 14-16y	51	23.18	45	15.31
d. 17-19y	5	2.27	4	1.36
e. 20y and more than	1	0.45	1	0.34
Duration of menstrual cycle				
a. 28-30 days	179	81.36	192	65.31
b. 31-40 days	31	14.09	56	19.05
c. 41-50 days	6	2.73	2	0.68
d. 50 days	1	0.45	1	0.34
e. Irregular menstrual cycle	3	1.36	43	14.63
Duration of menstruation				
a. 2-3 days	114	51.82	123	41.84
b. 4-5 days	96	43.64	161	54.76
c. 6-7 days	10	4.55	10	3.40
Type of flow				
a. Slight	52	23.64	134	45.58
b. Moderate	159	72.27	147	50.00
c. Heavy	8	3.64	11	3.74
d. Scanty	1	0.45	2	0.68
Dietary pattern				
a. Vegetarian	22	10.00	18	6.12
b. Non vegetarian	74	33.64	137	46.60
c. Mixed vegetarian	124	56.36	139	47.28
History of irregular period				
a. Yes	19	8.64	1	0.34
b. No	201	91.36	293	99.66
History of Dysmenorrhoea				
a. Yes	31	14.09	8	2.72
b. No	189	85.91	286	97.28

Table.2 Comparison of Blood Pressure in Coastal and Noncoastal Areas

S.NO	Blood Pressure Category	Coastal N=220		Non Coastal N=294		Correlation coefficient	Standard deviation
		F	%	F	%		
1	Normal (<120 and <80)	57	25.91%	112	38.10%	0.77	40.87
2	Pre Hypertension (120-139 or 80-89)	111	50.45%	103	35.03%		
3	Stage-I (140-159 or 90-99)	35	15.91%	61	20.75%		
4	Stage-II (≥ 160 or ≥100)	17	7.73%	18	6.12%		

RESULTS AND DISCUSSION

Frequency and Percentage Distribution of Socio Demographic Variables among Women in Coastal and Non Coastal Areas

Comparison of Blood Pressure in coastal and non coastal areas.

In Coastal areas, Out of 220 samples, With regard to the category of the blood pressure 57(25.91%) had normal blood pressure, 111(50.45%) had pre hypertension, 35(15.91%) had stage-I hypertension, 17(7.73%) had stage-II hypertension. in non coastal areas, among 294 samples, 112(38.10%) had normal blood pressure, 103(35.03%) had pre hypertension, 61(15.91%) had stage-I hypertension, 18(6.12%) had stage-II hypertension. The correlation coefficient value is highly significant (0.77) and the standard deviation is 40.87.

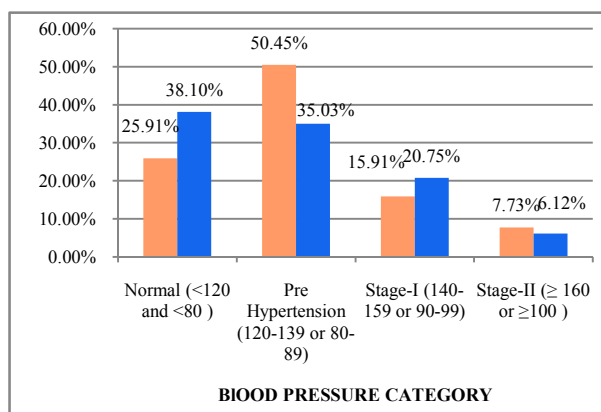


Fig. 1 Comparison of Blood Pressure in Coastal And Noncoastal Areas

The prevalence of stage-I BP in coastal areas is 35(15.91%) but in non coastal areas it is 61(15.91%).

Association of Socio Demographic Data with the Blood Pressure in coastal areas

There is a significant association of demographic variables with Age, exercise, Age at menarche, Dietary pattern and History of irregular periods are significant.

Association of Socio Demographic Data with the Blood Pressure in non coastal areas

There is a significant association of demographic variables with Age, exercise, Age at menarche, Dietary pattern and History of irregular periods are significant.

CONCLUSION

- The above results shown that stage-I values are high in the non coastal areas than coastal areas but pre hypertension is higher in coastal areas than non coastal areas.
- The variables like Age, exercise, Type of oil used for cooking, Type of salt used, habits, intake of fish, are you having stress and are you a known hypertensive are the influencing risk factors for the development of hypertension among the adults.

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