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Retrospective co-relational study to assess the life style pattern of patients diagnosed with Hypertension

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Abstract

A Non-experimental Retrospective Co-relational Research approach was undertaken in the present study "Retrospective co-relational study to assess the life style pattern of patients diagnosed with Hypertension finding of the study reveals in Out of 100 hypertensive patients majority 71% hypertensive patients had unhealthy life Style, 15% had moderate life style & only 14% hypertensive patients had healthy life style.

Keywords: Retrospective co-relational, Hypertension, healthy life style

Introduction

Hypertension is a silent killer as very rarely any symptom can be seen in its early stages until a severe medical crisis takes place like heart attack, stroke, or chronic kidney disease. Since people are unaware of excessive blood pressure, it is only through measurements that detection can be done. Although majority of patients with hypertension remain asymptomatic, some people with HTN report headaches, lightheadedness, vertigo, altered vision, or fainting episode. Hypertension is a major public health problem due to its high prevalence all around the globe. Around 7.5 million deaths or 12.8% of the total of all annual deaths worldwide occur due to high blood pressure. It is predicted to be increased to 1.56 billion adults with hypertension in 2025. Raised blood pressure is a major risk factor for chronic heart disease, stroke, and coronary heart disease. Elevated BP is positively correlated to the risk of stroke and coronary heart disease. Other than coronary heart disease and stroke, its complications include heart failure, peripheral vascular disease, renal impairment, retinal hemorrhage, and visual impairment. Hypertension (or HTN) or high blood pressure is defined as abnormally high arterial blood pressure. According to the Joint National Committee 7 (JNC7), normal blood pressure is a systolic BP < 120 mmHg and diastolic BP < 80 mm Hg. Hypertension is defined as systolic BP level of ≥ 140 mmHg and/or diastolic BP level ≥ 90 mmHg. The grey area falling between 120–139 mmHg systolic BP and 80–89 mmHg diastolic BP is defined as "prehypertension". Although prehypertension is not a medical condition in itself, prehypertensive subjects are at more risk of developing HTN.

Need of the study & review of literature

Hypertensive patients are facing many health care issues and challenges, such as; illiteracy, low income and distance away from health units, which increase difficulties to change their lifestyle behaviors, as diet, activity exercise, weight etc. In the past two decades in many developing countries an increasing load of cardiovascular disease was seen. Therefore cardiovascular deaths are considered as main cause of disability, morbidity and mortality worldwide. 75% cardiovascular problems results from high blood pressure, smoking and their contribution. In particular high blood pressure is a powerful risk factor for cardiovascular deaths. Especially nearly one billion individuals worldwide affected by hypertension, thus hypertension represents the main cause of cardiovascular disease in the world. Hypertension is an important public health challenge in both economically developing and developed countries. It is one of the risk factors for cardiovascular mortality. Data is available on hypertension in urban population but few studies are reported in rural areas. It was a community based cross-sectional study conducted in two rural areas in Delhi among 1005 subjects selected using systematic random sampling method. WHO steps approach was used to collect data. Blood pressure, body mass index, and blood sugar were measured.

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The prevalence of hypertension was 14.1% among study subjects. Hypertension was significantly higher in individuals more than 35 years than those less than 35 years. Hypertension was significantly higher in those who take alcohol and in subjects with raised total cholesterol level but in multivariate analysis only age, education, and cholesterol levels were independently associated with hypertension. There is significant burden of hypertension in rural areas in Delhi. Age, education, and cholesterol levels were independent risk factors of hypertension. (Jugal Kishore, Neeru-Gupta. 2016)

The control of hypertension requires awareness, and monitoring of the disease through screening. The present study was undertaken to explore the knowledge of middle-aged and older African-Americans about hypertension, and to understand steps they are taking to prevent hypertension and its related consequences. A qualitative research strategy with five focus groups of ten adults 55-83 years old each recruited through purposive sampling procedures participated in this study. Seventy six percent of participants were not adequately informed about the nature of hypertension and stroke, although all participants were aware of risks for the disease posed by factors including the consumption of foods high in saturated fat, and lack of exercise. Lack of adequate knowledge about hypertension, related diseases, and perceived barriers to screening may hinder adequate control of the disease among this group. (Maxwell twum-asante, 2015).

James Tosin Akinlua 2015 conducted a study on current prevalence pattern of hypertension in Nigeria. The global burden of hypertension and other non-communicable diseases (NCDs) is rapidly increasing, and the African continent seems to be the most affected region in the world. The prevalence of hypertension in Nigeria forms a substantial portion of the total burden in Africa because of the large population of the country currently estimated to be over 170 million. The purpose of this systematic review is to summaries up to date data on the prevalence and distribution of hypertension in Nigeria from prevalence studies. A search of the following databases: Pub Med, EM Base and WHO cardiovascular InfoBase from 1968 till date was conducted to identify studies which provide estimates of prevalence of hypertension in Nigeria. The search yielded a total of 1748 hits from which 45 relevant studies met the inclusion criteria for the review. The overall crude prevalence of hypertension ranged from 0.1% to 17.5% in children and 2.1% to 47.2% in adults depending on the benchmark used for diagnosis of hypertension, the setting in which the study was conducted, sex and ethnic group. The crude prevalence of hypertension ranged from 6.2% to 48.9% for men and 10% to 47.3% for women. In most studies, prevalence of hypertension was higher in males than females. In addition, prevalence across urban and rural ranged from 9.5% to 51.6% and 4.8% to 43% respectively. The prevalence of hypertension is high among the Nigerian population. Appropriate interventions need to be developed and implemented to reduce the preventable burden of hypertension especially at Primary Health Care Centers which is the first point of call for over 55% of the Nigerian population.

Statement of problem

Retrospective co-relational study on life style pattern of patients diagnosed with hypertension admitted in NSCB

medical college and hospital Jabalpur.

Objectives of the study

- Identify the life style pattern among hypertensive patients admitted in N.S.C.B. Medical College Jabalpur.
- Determine correlation between life style pattern and level of hypertension among hypertensive patients admitted in N.S.C.B Medical College Hospital Jabalpur.
- Determine association between life style pattern and selected demographic variable among hypertensive patient admitted in N.S.C.B Medical College Hospital Jabalpur.

Hypothesis

H1: There is significant correlation between life style pattern and level of hypertension among Hypertensive patients admitted in N.S.C.B Medical College Hospital Jabalpur.

H2: There is significant association between life style pattern and selected demographic variables among hypertensive patient admitted in N.S.C.B Medical College Hospital Jabalpur.

Methodology

- **Research approach:** Quantitative Research
- **Research design:** Non-experimental Retrospective Co-relational Research Design.
- **Setting of the study:** The setting for the present study is N.S.C.B Medical College & Hospital Jabalpur M.P.
- **Population:** In this study population consists of Hypertensive patients.
- **Sample:** sample comprises of male and female Hypertensive patients admitted in medical wards of NSCB Medical College Hospital.
- **Sample size:** 100 Hypertensive Patients, male and female.
- **Sampling technique:** Non-probability Purposive sampling technique. 100 samples were chosen by Non probability Purposive sampling technique from N.S.C.B Medical College & Hospital Jabalpur

Tool: The tool used for data collection is as follows

Section A: Socio-Demographic variables

This section consisted of 10 items to collect data about socio-demographic variables such as age, marital status, educational status, religion, type of family, areas of residence, occupation, monthly income, having any disease.

Section B: The tools used in present study is self rating scale to assess life style pattern in four criteria i.e. nutritional habits' activity and exercise, personnel habits, and stress relaxation strategies.

Reliability: Reliability of tool was established by test retest method. 10 subjects were measured, in which reliability of tool was found out by Karl Pearson correlation coefficient formula and found to be $r = 0.9$, which indicated tool was reliable.

Pilot study: Pilot study was carried out to test the methodology planned for the main study. The pilot study

was conducted in Seth Govind Das district Hospital Jabalpur M.P. 10 subjects (Hypertensive patients) were measured, through self rating scale to assess life style pattern in four criteria i.e. nutritional habits' activity and exercise, personnel habits, and stress relaxation strategies. After administrating tool found r value = 0.9, by Karl Pearson correlation coefficient formula and found to be r value = 0.9, which indicated tool was reliable.

Data collection procedure

Ethical consideration was fulfilled by obtaining informed consent from Hypertensive patients admitted at selected hospital of Jabalpur prior to data collection & confidentiality of the samples was maintained. Survey was conducted using self constructed five point rating scale on life style pattern. Selected 100 hypertensive patients and administered self rating scale to assess life style pattern in four criteria i.e. nutritional habits' activity and exercise, personnel habits, and stress relaxation strategies. Asked to patient please tick any one correct answer accordingly his her own life style pattern and collect from every one after one hour. it was took one month's duration for completely collect data regarding life style pattern of total 100 hypertensive patients those are admitted in setting.

Findings

Section A: Socio Demographic data of hypertensive patients

Out of 100 Hypertensive patients, 44% were from age above 51 years, 62% were males, 34% were educated till primary level & 36% had the monthly income rupees 6,000 -25,000

only, total 28% were businessman, 71% hypertensive patients were married, 54% were resident in urban areas. In majority 37 were suffering with hypertension & other chronic disease.

Section B: Level of hypertension of patients diagnosed with hypertension

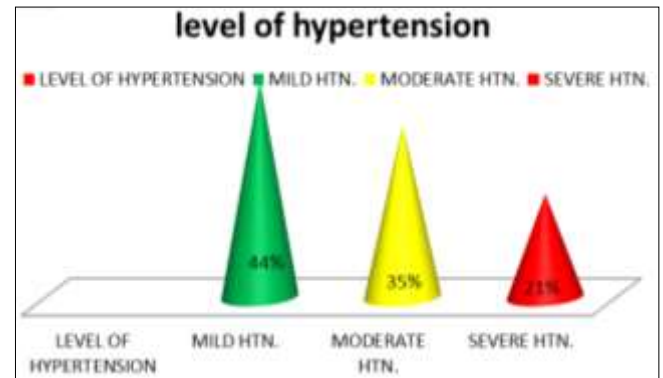


Fig 1: Conical diagram showing the distribution of Subject according to level of hypertension

Out of 100 Hypertensive patients maximum number 44(44%) had severe hypertension (180/110-200/120mm/Hg), 35(35%) had Mild hypertension (140/85-150/90mm/Hg), 21(21%) had Moderate hypertension (160/96-170/100 mm/Hg).

Section C: Life style pattern of hypertensive patients

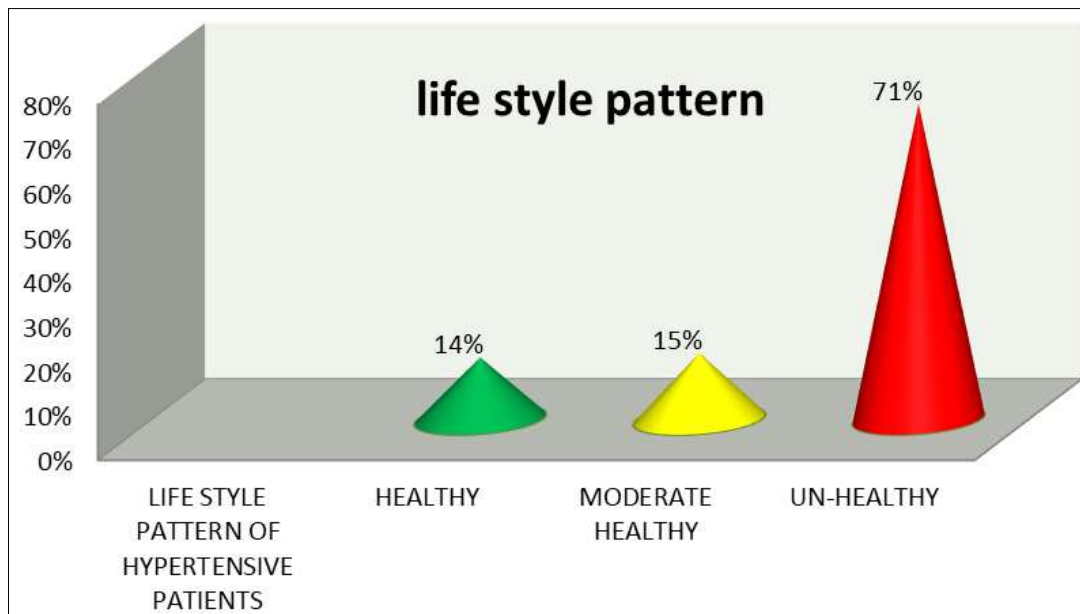


Fig 2: Conical diagram showing the distribution of Subject according to life style pattern

Out of 100 hypertensive patients majority 71% hypertensive patients had unhealthy life Style, 15% had moderate life style & only 14% hypertensive patients had healthy life style.

Section D: Co-relation between life style pattern and level of hypertension.

Table 1: Mean, SD and Co-relation Coefficient between life style pattern and level of hypertension (N=100)

S. No.	Variables	Mean	SD	Karl Pearson's correlation coefficient (r)
01.	Life style pattern	58.74	83.2	r=0.10 perfect positive correlation according to Gilford correlation table
02.	Level of hypertension hypertension	60.4	85.64	

Findings in Table No.1 revealed that Mean of level of hypertension was 60.4 & Life style pattern score was 58.74. SD of level of hypertension was 83.2 & SD of Life style pattern was found to be 85.64. Karl Pearson's correlation coefficient (r)=0.10 showed the perfect positive correlation according to Gilford Correlation. Hence, Hypothesis H1, that is there will be significant correlation between life style pattern and level of hypertension is accepted.

Discussion

Assessment of level of Blood pressure

The result of the study indicate that, among 100 hypertensive patients 44% hypertensive patient have severe hypertension 180/110-220/120 mm/Hg, 35% have 140/85-150/90 mm/Hg mild hypertension & rest 21% patients have moderate hypertension 160/95-170/100 mm/Hg.

Assessment of Life style pattern of hypertensive patients

This study illustrate that among 100 hypertensive patients were, 71% having Un-Healthy life style pattern, 15% Have moderate healthy life style & rest only 14% hypertensive patients have healthy life style pattern.

the study support to the similar study conducted by, Shikha Singh, ^[1]Ravi Shanka, *et al.* 2017, on Prevalence and Associated Risk Factors of Hypertension: A Cross-Sectional Study in Urban Varanas were, Men exhibit higher prevalence of hypertension and pre hypertension than their female counterparts (M: 40.9% and F: 26.0%) and (M: 45.9% and F: 38.05%), respectively. One of the possible explanations for this gender disparity in hypertension prevalence could be partially due to biological sex difference and partially due to behavioral risk factors like smoking, alcohol consumption, or physical activity. Age was found to be an important risk factor for hypertension, marital status, education, occupation, socioeconomic status, BMI, abdominal obesity, tobacco use, alcohol use, and physical activity were significantly associated with the hypertension. Low literacy level and being too rich were associated with hypertension. higher education imparts better knowledge and information about hypertension and subsequently those people with higher education had a healthier lifestyle. Interestingly, in study found inverse association between physical activity and hypertension. As per WHO report, alcohol consumption was the third largest risk factor in the developed countries and tobacco use was being the second major cause of death worldwide. This study indicated the positive association between alcohol and tobacco use and hypertension.

Conclusion & Recommendation: Nil

Conclusion

The present study unveils few among the vast number of predictors for life style pattern and level of hypertension. The health care services should pay more attention towards the life style pattern. Advice regarding healthy eating and life style changes must be provided and the importance of physical exercise must be stressed upon. Family support should be ensured by creating awareness in the rural community as a whole. The government should incorporate components related to healthy life style in the national health programme.

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Conflict of interest: None

Source of funding: Self

What does this study convey?

Hypertension is a significant cardiovascular disorder in India and is raising epidemic representation a major public health concern. Although hypertension is a growing health concern, this disease burden of hypertension is also associated with poor quality of life and low socioeconomic status this can potentially affect the whole population.

Who will use these findings?

The findings of this study will serves as the basis for the student nurse to conduct future qualitative and quantitative research and characterize life habits, such as smoking, alcohol consumption, physical exercise and presence of obesity, identify knowledge on these life habits and associate the study variables with hypertension control in hypertensive patients under outpatient follow-up.

How can the findings be put into practice?

Nurse administrators are challenged to take steps to educate nursing staff and students about the issues and concerns of life style pattern. They have the responsibility of creating awareness regarding healthy life style pattern and their management by facilitating free distribution of booklets and handouts to hypertensive patients in all outpatient departments of hospitals, health clinics in urban and rural settings.

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