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# ASSESS THE KNOWLEDGE REGARDING LIFESTYLE MODIFICATION AMONG HYPERTENSIVE ADULT POPULATION IN SELECTED RURAL AREAS KASHMIR

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## ABSTRACT

*Background of study: This study evaluates the degree to which hypertension patients followed their lifestyle changes and pinpoints the obstacles to doing so. One condition that puts many systems at risk for illness is hypertension. Patients who don't have their hypertension under control risk death and other inevitable problems. The primary cause of these debilitating sequelae is noncompliance with therapy, whereas patient education regarding their illness is a critical component of improved compliance. Objective: To assess the knowledge of adults regarding lifestyle modification among hypertensive adult population. Method: Research carried out selected rural areas and 60 adults were requited through purposive sampling technique. Tool was prepared and checked, validated. Used SPSS software for analysis of data. Used different analysis test. To conclude the study finally identified association between dependent and independent variables. Result: Revealed that majority of adults 28(47%) were average knowledge regarding life style modification regarding hypertension,22(37%) was poor knowledge and 10(16%) were good knowledge regarding life style modification regarding hypertension. educational status of adult's significant association with knowledge regarding life style modification regarding hypertension hence P<0.05 level. Age, religion, occupation, family monthly income, source of information and type of family had no association between knowledge regarding life style modification regarding hypertension. Conclusion: According to this survey, the majority of adults lacked adequate understanding about changing their lifestyles to manage their hypertension. Well-planned educational interventional program(s) that focus on the weak points are required to increase public knowledge of lifestyle change in relation to hypertension.*

**Keywords: Knowledge, Life style modification, Adults, hypertension, Rural area**



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## INTRODUCTION

A major modifiable risk factor for cardiovascular disease (CVD), hypertension will impact 1.3 billion individuals worldwide in 2022 and account for 32.8% of all fatalities. Kashmir and other low- and middle-income nations account for about 80% of these cases. Between 2009 and 2021, hypertension in kashmir increased by 28.6%, and during that same time period, there was a corresponding rise in CVD-related morbidity and mortality of 25% and 38%, respectively. Although the higher prevalence of hypertension has historically been associated with metropolitan areas, the difference between rural and urban areas is narrowing, particularly for older persons. In Kashmiri populations, lowering hypertension can reduce the morbidity and death from CVD. However, it is noted that Ghanaians over the age of 18 have a low level of awareness and control over hypertension.[1]

The frequency of hypertension has rapidly increased within the Navrongo Health and Demographic Surveillance Site (HDSS) coverage region, rising from 19.3% in 200 to 24.5% in 2015. Low levels of awareness, treatment, and control of hypertension are linked to the increasing prevalence of the condition in the region. In 2015, just 10% of persons with hypertension had acquired control, and women were more likely than males to do so. Although low literacy has been linked to low awareness, other significant issues that have been discovered include a lack of knowledge about healthy lifestyle determinants, a lack of health system strengthening in risk factor detection, surveillance, and counselling access. Between 2022 and 2023, the African-Wits-INDEPTH genomic project (AWI-Gen) was carried out to look at the environmental and genetic risk factors for cardiometabolic disorders. Following the research's successful completion in 2023, community feedback workshops were held to raise awareness of CVD and related risk factors both among study participants and at the community level. It is still unknown how this community input might affect individuals' attitudes, actions, and understanding of hypertension.[2]

Objective measures of hypertension knowledge and awareness have not been studied before, despite the fact that the community feedback sessions revealed an apparent lack of knowledge and awareness among adults (40–60 years old). Evidence-based, contextual interventions can be developed and investigated to fill knowledge gaps and encourage healthier behaviours in an attempt to lower hypertension morbidity and mortality by evaluating the community's current knowledge, behaviours, and perceptions regarding the condition.[3]

Changes in lifestyle are based on three main ideas. First, overweight, or obese people can lose weight by following the Dietary Approaches to Stop Hypertension (DASH) guidelines, which emphasize fruits and vegetables, high-fiber foods, and low-fat dairy products since obesity increases the risk of hypertension 5-fold. Second, more physical activity causes haemodynamic and autonomic alterations in the cardiovascular system, which lower peripheral blood flow resistance and, eventually, blood


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pressure. 4. Lastly, stop smoking since nicotine hardens the walls of the arteries and narrows them, which can increase heart rate and blood pressure. Therefore, for those who attain and sustain lifestyle changes, adherence to them can help with drug dropout and drug retreat.[4]

## MATERIAL AND METHODS:

### Study area and period:

Study was conducted in selected rural areas at kashmir. The study period was one month.

### Study design:

Descriptive research design was used for study

### Population

### Source and study population

Source of population was all the adult population and source of population was selected adults at rural areas.

### Sampling technique and sample size:

Purposive sampling technique and 60 adults were selected for study

### Inclusive criteria

Adults are willing to participate in the study

Adults who are interest to participate in study

### Exclusion criteria

Adults are not able to read and write

Adults not interest to participate in this study

### Variables

### Dependent variable

Knowledge of adults

### Independent variable

Knowledge regarding lifestyle modification

### Sociodemographic variables

Age, religion, monthly income, educational status, occupational status, source of information, Type of family.

### Operational definition

**Knowledge:** In this study knowledge refers to the adults regarding hypertension and prevention.

**Adults:** It refers to the age group between 20 to 40 years of age

**hypertension:** It refers to a disorder in which the blood pressure of adults 150 systolic and diastolic blood pressure 90mm/hg.



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**Life style:** It refers to the exercise,diet and maintaining healthy life style

**Rural area:** It is the communities with a population density below 150 inhabitants per square kilometers.

**Data quality control**

One week before the main collecting the data, the tool was identified on five percentage of the total sample size in a different location to assess their effectiveness. Insights from this pretest led to revisions that aligned the questionnaires more closely with the study goals. Throughts the data collection process, we ensured data consistency by rigorously monitoring the data collectors and their methods and by routinely reviewing the collected data. Any errors or misinterpretations in the questionnaires were promptly addressed by supervisors, who collaborated with the principal investigators to make necessary adjustments before the next day's collection.

**Interpretation of result analysis:**

Before the study analysis, the information collected was cleaned, numbered and input in to the analysis software. The data will be analyzed using SPSS version 23, with result presented through detailed descriptions, frequency and percentage including tabulation, charts and cross-tabulations and chi-square test was used to see the association between dependent and independent variables if probability value less than and equality to 0.05 level will be regarded as important analysis.

**RESULT:**

**Table:1 frequency and percentage distribution of demographic variables**

**N=60**

| Variables | | Frequency | Percentage |
|---|---|---|---|
| Age groups | 20-30 | 15 | 25 |
| | 31-40 | 25 | 42 |
| | 41-50 | 20 | 33 |
| Religion | Muslim | 40 | 67 |
| | Sikh | 20 | 33 |
| Educational status | No formal education | 10 | 17 |
| | Primary | 14 | 23 |
| | secondary | 18 | 30 |



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| | | | |
|---|---|---|---|
| | Higher secondary | 10 | 17 |
| | Graduation and above | 8 | 13 |
| Occupation | Agriculture | 20 | 33 |
| | Private | 20 | 33 |
| | Business | 18 | 30 |
| | Government | 2 | 3 |
| Family monthly income | <10,000 | 5 | 8 |
| | 11,000-15,000 | 16 | 27 |
| | 15,000-20,000 | 21 | 35 |
| | >21,000 | 18 | 30 |
| Type of family | Joint | 27 | 45 |
| | Nuclear | 24 | 40 |
| | Extended | 9 | 15 |
| Source of information | Friends | 4 | 7 |
| | Family member | 6 | 10 |
| | Media | 15 | 25 |
| | Health profession | 35 | 58 |
| **Total** | | **60** | **100** |

Table 1 shows that frequency and percentage of respondents 25(42%) were 31-40 years,20(33%) were 41-50 years and 15(25%) were 20-30 years age groups. Regarding religion of adults ,40(67%) were Muslim and 20(33%) were sikh.

Educational status of adults majority of adults 18(30%) were secondary education,14(23%) were primary,10(17%) were no formal education and higher secondary and 8(13%) were graduation and above. Regarding occupational status of adults 20(33%) were agriculture and private job,18(30%) were business and 2(3%) were government job.

Regarding family monthly income of adults, 21(35%) were 15,000 to 20,000,18(30%) were more than 21,000,16(27%) were11,000 to 15,000 and 5(8%) were less than 10,000. Regarding type of



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family majority of adults 27(45%) were living in joint family,24(40%) were nuclear family and 9(15%) were extended family.

Regarding source of information about hypertension 35(58%) were health person,15(25%) were media,6(10%) were family member and 4(7%) were friends.

**Table 2: knowledge level of respondents**

| Knowledge level | **Frequency** | **Percentage** |
|---|---|---|
| Poor knowledge | 22 | 37 |
| Average knowledge | 28 | 47 |
| Good knowledge | 10 | 16 |

Table 2: shows that majority of adults population 28(47%) were average knowledge regarding lifestyle modification regarding hypertension,22(37%) were poor knowledge and 10(16%) were good knowledge regarding lifestyle modification regarding hypertension.

**Table:3 Association between knowledge of lifestyle modification regarding hypertension and selected demographic variables**

| **Variables** | | **Knowledge level** | | | | **chi-square** | **DF** | **P-Value** |
|---|---|---|---|---|---|---|---|---|
| | | **Poor knowledge** | **Average knowledge** | **Good knowledge** | **Total** | | | |
| **Age group** | 20-30 | **7** | **9** | **4** | **20** | **0.531** | **2** | **0.341** |
| | 31-40 | **10** | **12** | **4** | **26** | | | |
| | 41-50 | **5** | **7** | **2** | **14** | | | |
| Religion | Muslim | **11** | **16** | **6** | **33** | **0.421** | **1** | **0.294** |
| | Sikh | **11** | **12** | **4** | **27** | | | |
| **Educational status** | **No formal education** | **4** | **2** | **2** | **8** | **1.832** | **4** | **0.002S** |
| | **primary** | **5** | **7** | **1** | **13** | | | |
| | **secondary** | **9** | **8** | **2** | **19** | | | |
| | **Higher secondary** | **3** | **9** | **3** | **14** | | | |



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| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Graduation and above** | **1** | **2** | **1** | **4** | | | |
| **Occupation** | **Agriculture** | **15** | **14** | **6** | **35** | **1.364** | **1** | **0.862** |
| | **Private** | **4** | **6** | **2** | **12** | | | |
| | **Business** | **2** | **6** | **2** | **10** | | | |
| | **Government** | **1** | **2** | **0** | **3** | | | |
| **Family monthly income** | **<10,000** | **4** | **5** | **2** | **11** | **0.471** | **1** | **0.573** |
| | **11,000-15,000** | **12** | **14** | **3** | **29** | | | |
| | **15,000-20,000** | **4** | **6** | **3** | **13** | | | |
| | **>21,000** | **2** | **3** | **2** | **7** | | | |
| **Type of family** | **Joint** | **9** | **8** | **4** | **21** | **0.731** | **2** | **0.935** |
| | **Nuclear** | **8** | **15** | **2** | **25** | | | |
| | **Extended** | **5** | **5** | **4** | **14** | | | |
| **Source of information** | **Friends** | **2** | **2** | **1** | **5** | **0.392** | **1** | **0.584** |
| | **Family member** | **1** | **3** | **2** | **6** | | | |
| | **Media** | **1** | **4** | **1** | **6** | | | |
| | **Health profession** | **18** | **19** | **6** | **43** | | | |

**NS-No significant S-Significant, p<0.05**

Table 3: shows that educational status of adult's significant association with knowledge regarding lifestyle modification regarding hypertension hence P<0.05 level. Age, religion, occupation, , family monthly income and type of family, source of information had no association between hypertension.

## DISCUSSION

To assess the knowledge of adults majority of adults population 28(47%) were average knowledge regarding lifestyle modification regarding hypertension,22(37%) were poor knowledge and 10(16%) were good knowledge regarding lifestyle modification regarding hypertension.

A similar investigation was carried out to evaluate the A significant risk factor for numerous other diseases, hypertension is a severe public health concern. Effective hypertensive care is hampered by inadequate management practices, the risks of untreated hypertension, and the advantages of improved control. The study's objective was to determine how well-informed adults in the Owerri Metropolis were about hypertension. 201 respondents who were Owerri Metropolis residents at the time of the survey participated in a cross-sectional descriptive study. A pre-tested questionnaire given



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by the interviewer was used to gather data. To ascertain the relationship between demographic traits and hypertension knowledge, the data was analysed using the SPSS version and the chi-square test. The study population consisted of 96 (48%) males and 105 (52%) females. 134 (69%) stated that blood pressure of 120/80 mmHg was normal. The main aggravating factors for hypertension identified by participants were excess weight 155 (77%), high salt intake 191 (98), excess alcohol consumption 159 (79%), smoking 181 (90) and excess thinking 129 (64). The respondents identified stroke at 94% (189), heart failure at 91% (183), and heart ache at 72% (145) as health conditions associated with hypertension by the respondents. Very few of the adults had a high (15%) level of knowledge of hypertension. Study concluded that the respondents had enough awareness of hypertension, its consequences, and management options. Females aged 50 and older who are Christians from Igbo have a high level of understanding about hypertension. Furthermore, those without a tertiary degree had a higher level of knowledge. To enhance understanding and reduce the consequences of poorly treated hypertension, targeted health education programmes are urgently needed.[5]

Similar study was conducted to assess the This study assess how well hypertensive patients adhered to lifestyle modifications and it identifies the barriers to compliance with lifestyle modifications. It employed an online-based cross-sectional study among hypertensive patients in the east, west, middle, north, and south regions of Saudi Arabia . The study included 1135 participants, 55.8% of them were females and 44.2% of them were males. 25.2% of participants aged between 41- 50 years old. 33.4% of participants had hypertension for less than one year, 28.2% for 1- 5 years and 23.8% for more than 10 years. 56.5% of participants take anti-hypertensive medications. 32.6% have 3 meals per day 27% have less than three meals and 21.9% have 4 meals per day. 41.1% of the participants exercise. 15.1% of the participants were smokers. Medication adherence was significantly associated with age, BMI, marital status, educational level, occupation, and hypertension ($P < 0.05$) . Exercise adherence was significantly associated with age, BMI, marital status, gender, educational level, and job but not with duration of hypertension. Diet adherence was significantly associated with age, BMI, marital status, educational level, and duration of hypertension ($P < 0.05$). Smoking was significantly associated with participants' gender, age, educational level, job, and duration of diabetes ($P < 0.05$). In conclusion, few hypertensive patients practice healthy lifestyles. Age, level of education, occupation, length of illness, and marital status of respondents were found to be important predictors of effective lifestyle modification strategies.[6]



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## CONCLUSION

This result showed that people with hypertension lead healthy lives. Effective lifestyle adjustment measures were found to be significantly predicted by the respondents' age, marital status, occupation, degree of education, and length of sickness. More focus should be placed on providing dietary counselling and health promotion in order to increase the practice of lifestyle adjustment in patients with hypertension, as our study showed that there is a lack of adherence to lifestyle modifications and that the participants' adherence level is considered low. Guidance and support should be provided to all hypertension patients who require blood pressure control in order to build and sustain healthy lifestyle patterns.

## COMPETING INTEREST

Authors declared no conflict of interest

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