



International Journal of Innovative Research in Health Science

Published: October 2026

Volume 2, Issue 10, Pages 9-14

DOI: <https://doi.org/10.63349/ijirhs.202657>

Research Article

A Study to assess the level of knowledge And lifestyle practices regarding Hypertension Among Hypertensive Adults in a selected community area

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Abstract:

Background: Hypertension is one of the most prevalent non-communicable diseases and a leading cause of morbidity and mortality worldwide. Often called a “silent killer” because it progresses without noticeable symptoms, it substantially raises the risk of cardiovascular disease, stroke, kidney failure and premature death. Effective control depends heavily on the individual’s knowledge of the condition and adherence to recommended lifestyle practices such as a low-salt diet, regular physical activity, weight control, and avoidance of tobacco and alcohol.

Aim: To assess the level of knowledge and lifestyle practices regarding hypertension among hypertensive adults in a selected community area, and to determine their relationship and association with selected demographic variables.

Methods: A quantitative research approach with a non-experimental descriptive design was adopted. The study was conducted among 60 hypertensive adults aged above 30 years residing in the catchment area of an Urban Primary Health Centre, Nekundram, selected by a non-probability convenient sampling technique. Data were collected using a structured questionnaire comprising demographic variables, a 20-item knowledge questionnaire, and a 10-item lifestyle practice checklist scored on a 3-point scale (Always = 2, Sometimes = 1, Never = 0). Descriptive and inferential statistics, including the Chi-square test and Karl Pearson’s correlation, were used for data analysis. **Results:** Among the 60 hypertensive adults, 31 (51.7%) had poor knowledge, 28 (46.6%) had average knowledge, and only 1 (1.7%) had good knowledge regarding hypertension. Regarding lifestyle practice, 36 (60.0%) had moderate practice, 21 (35.0%) had poor practice, and 3 (5.0%) had good practice. A strong positive correlation was found between knowledge and lifestyle practice ($r = 0.952$, $p = 0.0001$). Knowledge showed a statistically significant association with age, gender, occupation, monthly income, duration of hypertension, and source of information ($p < 0.05$), while lifestyle practice was significantly associated with occupation, duration of hypertension, and source of information ($p < 0.05$).

Conclusion: The study concluded that the majority of hypertensive adults had inadequate knowledge and only moderate lifestyle practice regarding hypertension, and that better knowledge was strongly linked to healthier lifestyle behaviour, underscoring the need for structured community-based health education and counselling to improve hypertension awareness and self-care.

Keywords: Hypertension, Knowledge, Lifestyle practices, Hypertensive adults, Community health, Health education, Blood pressure.

INTRODUCTION

Hypertension, commonly known as high blood pressure, is one of the most prevalent non-communicable diseases and a leading cause of morbidity and mortality worldwide. It progresses silently, without obvious symptoms, yet significantly increases the risk of heart disease, stroke, kidney failure and premature death (WHO, 2021). According to the WHO Global Report on Hypertension (2025), an estimated 1.4 billion adults aged 30–79 years were living with hypertension in 2024, of whom only about 44% were diagnosed and treated, and just 23% had their condition adequately controlled.

In India, the ICMR-INDIAB study reports an overall hypertension prevalence of 35.5%, affecting an estimated 315 million adults, with urban areas showing consistently higher rates than rural areas. The National Family Health Survey (NFHS-5, 2019–2021) recorded a prevalence of 22.8%, up from 18.1% in NFHS-4, a rise largely attributed to rapid urbanization, changing dietary patterns, increased stress, and sedentary lifestyles. Control of hypertension in India remains poor, mainly due to lack of awareness, inadequate knowledge, and unhealthy lifestyle practices among individuals.

Need for the study

Lifestyle modification is a cornerstone of hypertension prevention and management. Healthy dietary habits, reduced salt intake, regular physical activity, maintenance of ideal body weight, and stress reduction are essential components of blood pressure control, but effective management depends largely on an individual’s knowledge of the disease and willingness to adopt these practices. Assessing the existing level of knowledge and lifestyle practice among hypertensive adults is therefore essential to identify gaps and to guide community-based nursing interventions and health education programmes. The findings of the study can provide a basis for planning targeted health education and counselling for hypertensive adults in the community.

METHODOLOGY

A non-experimental quantitative research approach with a descriptive research design was adopted to assess the level of knowledge and lifestyle practices regarding hypertension among hypertensive adults in a selected community area. The study was conducted in a selected community area (Urban Primary Health Centre, Nekundram), chosen based on feasibility, accessibility of participants, and permission from the concerned authorities. The population comprised all

adults above 30 years of age diagnosed with hypertension residing in the selected community area.

Sixty hypertensive adults who met the inclusion criteria and consented to participate were selected using a non-probability convenient sampling technique. Data were collected using a structured questionnaire comprising three sections: Section A recorded demographic variables (age, gender, education, occupation, monthly income, duration of hypertension, family history of hypertension, and source of information); Section B was a 20-item knowledge questionnaire scored as Correct = 1 and Wrong = 0 (total score range 0–20), interpreted as poor (0–7), average (8–14) and good (15–20) knowledge; and Section C was a 10-item lifestyle practice checklist scored on a 3-point scale (Always = 2, Sometimes = 1, Never = 0; total score range 0–20), interpreted as poor (0–7), moderate (8–14) and good (15–20) practice. The purpose of the study was explained to each participant and written informed consent was obtained prior to data collection. Data were analysed using descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (Chi-square test and Karl Pearson's correlation coefficient) to determine the association between the level of knowledge and lifestyle practice and selected demographic variables, and the relationship between knowledge and lifestyle practice.

RESULT

Table 1 shows that among the 60 hypertensive adults, most (43.4%) were aged 41–50 years, 53.3% were female, 45.0% had no formal education, and 50.0% were unemployed. The majority (81.7%) had a monthly family income below ₹10,000, 40.0% had been hypertensive for 1–5 years, 55.0% had no family history of hypertension, and 60.0% received information about hypertension mainly from a doctor or health worker. Table 2 reveals that regarding the level of knowledge, 31 (51.7%) hypertensive adults had poor knowledge, 28 (46.6%) had average knowledge, and only 1 (1.7%) had good knowledge regarding hypertension.

Table 3 illustrates that regarding lifestyle practice, 36 (60.0%) hypertensive adults had moderate practice, 21 (35.0%) had poor practice, and 3 (5.0%) had good practice. Table 4 shows that the mean knowledge score was 6.95 ± 2.66 and the mean lifestyle practice score was 9.50 ± 3.38 . Karl Pearson's correlation between knowledge and lifestyle practice was $r=0.952$ ($p = 0.0001$), indicating a strong, statistically significant positive relationship: as knowledge regarding hypertension increased, lifestyle practice also improved significantly.

Table 5 indicates that the level of knowledge had a statistically significant association with age ($\chi^2 = 11.243$, $p=0.024$), gender ($\chi^2 = 7.490$, $p = 0.024$), occupation ($\chi^2=19.168$, $p = 0.004$), monthly income ($\chi^2 = 22.018$, $p=0.0001$), duration of hypertension ($\chi^2 = 22.958$, $p = 0.001$), and source of information ($\chi^2 = 17.115$, $p = 0.009$) at the 0.05 level of significance; education and family history of hypertension showed no significant association. Table 6 indicates that the level of lifestyle practice showed a statistically significant association with occupation ($\chi^2=16.009$, $p = 0.014$), duration of hypertension ($\chi^2 = 20.657$, $p = 0.002$), and source of information ($\chi^2 = 16.027$, $p=0.014$); age, gender, education, monthly income and family history of hypertension showed no significant association with lifestyle practice.

Discussion

In the present study, more than half (51.7%) of the hypertensive adults had poor knowledge regarding hypertension, and only 1.7% had good knowledge. This finding is consistent with Mishra et al. (2025), who reported inadequate knowledge and poor adherence to lifestyle in the

modification among hypertensive patients in Odisha, and with Yesmin et al. (2025), who found inadequate knowledge of hypertension risk factors among rural community residents in Bangladesh. Because hypertension is largely asymptomatic, gaps in basic disease knowledge can directly translate into delayed care-seeking and poor self-management.

Regarding lifestyle practice, the majority of participants (60.0%) demonstrated only moderate practice, with 35.0% showing poor practice and just 5.0% good practice. This is comparable to Zaman et al. (2025), who reported good knowledge and positive attitudes but poor lifestyle practice, particularly around regular physical exercise, among hypertensive patients, suggesting that awareness alone does not guarantee behaviour change without sustained reinforcement and counselling.

The strong positive correlation observed between knowledge and lifestyle practice ($r = 0.952$, $p < 0.05$) supports the premise that hypertensive adults with better disease knowledge are more likely to adopt healthy behaviours such as reduced salt intake, regular exercise, weight control, and medication adherence. This is in line with Gowrishankar et al. (2026), who found satisfactory knowledge but inadequate lifestyle adherence in Tirunelveli district, and concluded that strengthening health education is essential to translate knowledge gains into sustained practice.

The significant association between knowledge and demographic variables such as age, gender, occupation, income, duration of illness and source of information suggests that these factors shape how much health information a person is exposed to and able to act upon. The absence of association with formal education in this study is a notable point of difference from some other reports, and may reflect the fact that most participants' primary source of information was a doctor or health worker rather than formal literacy-dependent channels.

CONCLUSION

The study concluded that hypertensive adults in the selected community area had predominantly poor to average knowledge and moderate lifestyle practice regarding hypertension, with a strong positive relationship between the two. Age, gender, occupation, income, duration of illness and source of information were significantly associated with the level of knowledge, while occupation, duration of illness and source of information were significantly associated with lifestyle practice. Strengthening structured, community-based health education, regular screening, and reinforcement through trusted sources such as doctors and health workers may help improve both knowledge and healthy lifestyle behaviour, thereby supporting better control of hypertension and prevention of its complications.

RECOMMENDATIONS

Regular community-based health education and counselling programmes on hypertension should be organised, with particular emphasis on unemployed adults and those with lower monthly income. Nurses and health workers should provide structured teaching on low-salt diet, regular physical activity, weight control, and avoidance of tobacco and alcohol, since better knowledge was strongly linked to healthier lifestyle practice in this study. Periodic screening camps and reinforcement of health messages through doctors and health workers, who were the participants' main source of information, should be strengthened to sustain lifestyle change. Further studies with larger samples and across different community settings are recommended to validate these findings.

REFERENCES

- Yadav, P. K., Kalyani, V. C., Narayan, D., & Kataria, N. (2023). A descriptive study to assess knowledge related to hypertension and its impact upon exercises and sleep pattern among adults from communities of Uttarakhand. *Journal of Education and Health Promotion*, 12, 85.
- Mishra, S., Mohapatra, J., Pradhan, S. K., & Mickey, A. R. (2025). Awareness and practice of lifestyle interventions among hypertensive patients in Odisha: A cross-sectional study. *Journal of Comprehensive and Clinical Practice*.
- Keendjele, T., Amkongo, M., Mojiminiyi, F., Namene, J., Niieta, K., Katali, O. K. H., et al. (2024). Knowledge, attitudes, and practices on hypertension among the health science faculty and students at the University of Namibia: A cross-sectional study. *Medicine*, 103(49), e40596.
- Yesmin, F., Uddin, M. N., Afroz, F., Zahan, A. A., & Bashar, M. A. (2025). Assessment of knowledge, attitude and practices regarding hypertension in a rural community. *International Journal of Pharmacy and Chemistry*, 11(2), 47–54.
- Zaman, K. M. S., Shafiq, S., Islam, M. S., Mortaz, R.-E., Debnath, S., Begum, R., et al. (2025). Knowledge, attitude and practice of life style modification in the management of hypertension. *Journal of Biomedical Research*, 6(1), 66–71.
- Jasinth, S., & Angel, E. N. (2023). A study to assess the knowledge regarding hypertension and its management among hypertensive patients at Government District Hospital, Narsinghpur, Madhya Pradesh. *International Journal of Advanced Research in Nursing*, 6(2), 180–184.
- Sefah, B., Onyame, A., Ankrah, C., Adjetey, P. T., & Nutornutsi, M. D. (2020). Knowledge, attitude and lifestyle practices pertaining to hypertension among the people of Ahoé-Ho. *International Journal of Health Sciences and Research*, 10(8), 110–118.
- Kalam, A., Wang, P., & Wang, P. (2025). Assessing hypertension knowledge and its association with sociodemographic variables among hypertensive patients in Bangladesh. *Scientific Reports*, 15, Article 43414.
- Rahman, M. N., Alam, S. S., Mia, M. A., Haque, M. M., & Islam, K. (2018). Knowledge, attitude and practice about hypertension among adult people of selected areas of Bangladesh. *MOJ Public Health*, 7(4), 211–214.
- Manju, V. (2021). Study to assess the knowledge and attitude on lifestyle modification among hypertensive patients attending OPD in Srinivasa Hospital, Bangalore. *World Journal of Advance Healthcare Research*, 5(6), 224–231.

Table 1: Distribution of demographic variables of the hypertensive adults. N = 60

Demographic Variables	F	%
Age (in years)		
31 – 40	11	18.3
41 – 50	26	43.4
51 – 60	23	38.3
Gender		
Male	28	46.7
Female	32	53.3
Educational Status		
No formal education	27	45.0
Primary	21	35.0
Secondary	8	13.3
Graduate	4	6.7
Occupation		
Unemployed	30	50.0
Private	22	36.6
Government	4	6.7
Self-employed	4	6.7
Monthly Income (₹)		
< 10,000	49	81.7
10,000 – 20,000	7	11.6
20,000 – 30,000	4	6.7
Duration of Hypertension		
< 1 year	22	36.7
1 – 5 years	24	40.0

Demographic Variables	F	%
> 5 years	11	18.3
> 10 years	3	5.0
Family History of Hypertension		
Yes	27	45.0
No	33	55.0
Source of Information		
Doctor / Health worker	36	60.0
Television	5	8.3
Social media	12	20.0
Family / Friends	7	11.7

Table 2: Frequency and percentage distribution of the level of knowledge regarding hypertension among the hypertensive adults. N = 60

Level of Knowledge	F	%
Poor (0 – 7)	31	51.7
Average (8 – 14)	28	46.6
Good (15 – 20)	1	1.7

Table 3: Frequency and percentage distribution of the level of lifestyle practice regarding hypertension among the hypertensive adults. N = 60

Level of Lifestyle Practice	F	%
Poor (0 – 7)	21	35.0
Moderate (8 – 14)	36	60.0
Good (15 – 20)	3	5.0

Table 4: Relationship between knowledge and lifestyle practice regarding hypertension among the hypertensive adults. N = 60

Variables	Mean	S.D	Karl Pearson's Correlation "r" & p- value
Knowledge	6.95	2.66	r = 0.952
Lifestyle practice	9.50	3.38	p = 0.0001, S*

*p<0.05, S – Significant. Table 4 shows a strong positive correlation (r = 0.952, p = 0.0001) between knowledge and lifestyle practice, indicating that as knowledge regarding hypertension among the hypertensive adults increases, their lifestyle practice also improves significantly.

Table 5: Association of the level of knowledge regarding hypertension among the hypertensive adults with their selected demographic variables. N = 60

Demographic Variables	Poor		Average		Good		Chi-Square Test & p- value
	F	%	F	%	F	%	
31 – 40	2	3.3	8	13.3	1	1.7	$\chi^2 = 11.243$ d.f = 4 p = 0.024, S*
41 – 50	13	21.7	13	21.7	0	0	
51 – 60	16	26.7	7	11.7	0	0	
Male	19	31.7	8	13.3	1	1.7	$\chi^2 = 7.490$ d.f = 2 p = 0.024, S*
Female	12	20.0	20	33.3	0	0	
No formal education	15	25.0	11	18.3	1	1.7	$\chi^2 = 6.997$ d.f = 6 p = 0.321, N.S
Primary	8	13.3	13	21.7	0	0	
Secondary	4	6.7	4	6.7	0	0	
Graduate	4	6.7	0	0	0	0	
Unemployed	13	21.7	17	28.3	0	0	$\chi^2 = 19.168$ d.f = 6 p = 0.004, S*
Private	12	20.0	10	16.7	0	0	
Government	4	6.7	0	0	0	0	
Self-employed	2	3.3	1	1.7	1	1.7	
< 10,000	22	36.7	27	45.0	0	0	$\chi^2 = 22.018$ d.f = 4 p = 0.0001, S*
10,000 – 20,000	7	11.7	0	0	0	0	
20,000 – 30,000	2	3.3	1	1.7	1	1.7	
< 1 year	5	8.3	16	26.7	1	1.7	$\chi^2 = 22.958$ d.f = 6 p = 0.001, S*
1 – 5 years	15	25.0	9	15.0	0	0	
> 5 years	11	18.3	0	0	0	0	
> 10 years	0	0	3	5.0	0	0	
Yes	16	26.7	10	16.7	1	1.7	$\chi^2 = 2.745$ d.f = 2 p = 0.253, N.S
No	15	25.0	18	30.0	0	0	
Doctor / Health worker	11	18.3	24	40.0	1	1.7	$\chi^2 = 17.115$ d.f = 6 p = 0.009, S*
Television	5	8.3	0	0	0	0	
Social media	10	16.7	2	3.3	0	0	
Family / Friends	5	8.3	2	3.3	0	0	

Table 6: Association of the level of lifestyle practice regarding hypertension among the hypertensive adults with their selected demographic variables. N = 60

Demographic Variables	Poor		Average		Good		Chi-Square Test & p- value
	F	%	F	%	F	%	
31 – 40	2	3.3	7	11.7	2	3.3	$\chi^2 = 6.621$ d.f = 4 p = 0.157, N.S
41 – 50	11	18.3	14	23.3	1	1.7	
51 – 60	8	13.3	15	25.0	0	0	
Male	11	18.3	16	26.7	1	1.7	$\chi^2 = 0.561$ d.f = 2 p = 0.755, N.S
Female	10	16.7	20	33.3	2	3.3	
No formal education	9	15.0	17	28.3	1	1.7	$\chi^2 = 9.969$ d.f = 6 p = 0.126, N.S
Primary	7	11.7	13	21.7	1	1.7	
Secondary	1	1.7	6	10.0	1	1.7	
Graduate	4	6.7	0	0	0	0	
Unemployed	6	10.0	22	36.7	2	3.3	$\chi^2 = 16.009$ d.f = 6 p = 0.014, S*
Private	9	15.0	13	21.7	0	0	
Government	4	6.7	0	0	0	0	
Self-employed	2	3.3	1	1.7	1	1.7	
< 10,000	16	26.7	31	51.7	2	3.3	$\chi^2 = 5.004$ d.f = 4 p = 0.287, N.S
10,000 – 20,000	3	5.0	4	6.7	0	0	
20,000 – 30,000	2	3.3	1	1.7	1	1.7	
< 1 year	3	5.0	16	26.7	3	5.0	$\chi^2 = 20.657$ d.f = 6 p = 0.002, S*
1 – 5 years	9	15.0	15	25.0	0	0	
> 5 years	9	15.0	2	3.3	0	0	
> 10 years	0	0	3	5.0	0	0	
Yes	15	25.0	17	28.3	1	1.7	$\chi^2 = 0.276$ d.f = 2 p = 0.871, N.S
No	12	20.0	19	31.7	2	3.3	
Doctor / Health worker	6	10.0	27	45.0	3	5.0	$\chi^2 = 16.027$ d.f = 6 p = 0.014, S*
Television	4	6.7	1	1.7	0	0	
Social media	8	13.3	4	6.7	0	0	
Family / Friends	3	5.0	4	6.7	0	0	

Cite this article as: Gayathri.P et al. (2026). 'A Study to assess the level of knowledge And lifestyle practices regarding Hypertension Among Hypertensive Adults in a selected community area'. International Journal of Innovative Research in Health Science, 2(10), 9-14