"Assessment of nurses Knowledge Regarding management of Hypertension in National Heart Foundation Hospital & Research Institute Mirpur- 2 , Dhaka Bangladesh"

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Abstract: *Nurses have a vital role in management of hypertension prevention of complications and promotion of patient's safety. A descriptive type of cross sectional study was carried out in National Heart foundation & Research institute mirpur-2 Dhaka Bangladesh to assessment of nurses Knowledge Regarding management of Hypertension. The study was conducted where 100 responded were interviewed. The aim of the present study was to assess nurse's knowledge, attitude, practice and performance concerning management of hypertensive patients in hospital. None of the nurses had negative attitude towards given care for hypertensive patients. A KAP questionnaire was designed to assess their knowledge, attitude and practice. An observation checklist was designed to check their knowledge attitude and practice. Sample size was 105 out of 300. study population at national Heart Foundation Hospital. and research institute Mirpur-2 Dhaka . Informed consent was taken by the respondent.The result of the present study revealed that 80% of the respondents have excellent knowledge about various aspects of hypertension where as 5% of the respondents have poor knowledge about management of Hypertension. According to the findings, it can be concluded that the nurse need to be equipped with knowledge on different aspects of management of hypertension including treatment and preventive measure. In order to improving nurse's knowledge on management of HTN some recommendation like in service training, organize short course, seminar, symposium, and other suitable training can be initiated.*

Materials and Methods: (10) *It was a descriptive type of study with Cross Sectional.*

*Research design is the overall arrangement of linking the theoretical research problems to relevant and realistic empirical research (Ghaur i & Gronhaug, 2005, p. 56). It is also useful for researcher to make rational choices and prioritize the preferred method of collecting and analyzing research data. However, Sau nders et al (2007, p. 131) describe the research design as a general plan that shows how the researcher answer the research question or problem.****The study was conducted at the national Heart Foundation Hospital and Research institute, Mirpur-2 Dhaka 1216.***

Results: *In this study socio-demographic characteristics were age, gender, marital status, education, occupation, living status family income, A total 105 respondent were included in this study of which 97% were female &   2.9% were male (table-1) The mean age group of the study population was 2.0952 which ranging from 0-85 years. Table 1shows that distribution of the age according to class interval age of the respondent are categorized into (3) three groups as group 1 (0-15) years, group-2 (16-30) years group-3 (31-45) years. Table 1 shows that the represented the high of the study population was group-2 (n=77) and lowest of the group are group 1(n=9) . This information is well   depicted in the above table-1*

Table-1 *shows that, 97.1% of the respondents were female & only 2.9 % were female* ***Table:2*** *found that the mean age of the respondents were* 38.74 ± 0.883*years with a range from 18-55 years. It is found from table that 41.9%, 34.3%, 18.1%, 3.8%, 1.9% of the respondents belonged to age group 41-50 years, 31-40 years, 21-30 years,* ≤ 20 *years & 51-60years respectively.****Table-3*** *tableshows that, majority 49.5%, were married ,40.0%, were unmarried 8.6% were widow and only 1.9% were divorced respectively.* ***table-4****shows that, 53.3%, was Muslim, 23.8%, was Hindu, 13.3%, were Hindu 7.6%were Christian, and 1.9% of the respondents belonged to the religion , respectively.table shows that, majority 49.5%, were diploma Nurse, 21.9%, were Msc/MPH , level, 20.0%, Hsc level , 6.7% were BSc Nurse and & 1.9% of the respondents belonged to the ssc educational respectively.****(table-5)Table-6 :****The above table shows that, 40.0%, were Private nurse , 35.2%, were Govt nurse, 22.9%, were student nurse 1.0% & 1.0% of the respondent were Ngo and others respectively.table -7****shows that, 53.3% respondent were lived at urban and 46.7% were lived at rural area respectively.****Table-8 :****The above table found that majority respondent 54.3%, family member were 2 person, 25.7%, family member were 5-6 person, 10.5% family member   were 7-8 person, & 9.5% respondent family*

*member were 2 person respectively.**Table 9 : (n=108)** The above table shows that 39.0% respondent had good knowledge and 61% had poor knowledge about the definition of Hypertension.**Table 10 . (n=108):** The above Table found that 65.7% respondent were good knowledge & 34.3% respondent were poor knowledge about types of Hypertension.*

Table11 : *Table reveals that 40.0 %, 23.8%, 20.0%, 16.2% of the respondents noticed that the causes of hypertension were Smoking Stress, Sedentary Life style, & Obesity respectively.* ***Table 12:*** *Table reveals that 69.5 %, 13.3%, 12.4%, 2.9%, 1.9% of the respondents noticed that the preventive measure of Hypertension were Maintain Sodium Level , Free from anxiety and tension, Avoid Tobacco, Jadda, Gul, Alcohol, Control Blood pressure Level & Regular exercise respectively.* ***Table13: (n=105)*** *Table shows that, Most of (61.0%) the respondent know the discharge care plan of Hypertension. 35.2 percent respondent did not know the discharge care plan of hypertension pt,* ***Table14: Distribution of the respondents by uncontrolled Hypertension can lead (n=105)*** *shows that, 77.1% respondent described that uncontrolled Hypertension control by avoid harmful drug intake.* ***Table 15 :*** *(n=105) Table reveals that 55.2% respondents were replied that regular blood pressure checkup is necessary and 44.8 percent were replied that not necessary.* ***Table 16: (n=105).*** *Table reveals that77.1 %, were replied that reduction in salt intake, 15.2%, regular physical activity are necessary, 7.6% were replied regarding to reduction of body weight regarding to lifestyle modification to reduce hypertension.*
Table 17 : *Distribution of the respondents byassociation between age group of the respondents & religion of the respondents* ***(n=105)*** *P value obtained from Pearson Chi-square (x^2) test finds that P- value was 0.024which was less than 0.05 that was statistically significant association between age group of the respondents & religion of the respondents.*

Table 18: *Distribution of the respondents byassociation between age group of the respondents & family members of the respondents**(n=105)** P value obtained from Pearson Chi-square (x^2) test, finds that P- value was 0.002 which was less than 0.05 that was statistically highly significant association between age group of the respondents & family member of the respondents.,***Table19 :*** *Distribution of the respondents byassociation between age group of the respondents &Regular Blood pressure checkup is necessary of the respondents (n=105) P value obtained from Pearson Chi-square (x^2) test,finds that P- value was 0.051 which was less than 0.05 that was statistically significant association between age group of the respondents &regular Blood pressure checkup is necessary.,***Table 20:*** *Distribution of the respondents byassociation between family members of the respondents & religion of the respondents (n=105) P value obtained from Pearson Chi-square (x^2) test, Table finds that P- value was 0.000 which was less than 0.05 that was statistically significant association between family members of the respondents & religion of the respondents.* ***Table21 :*** *Distribution of the respondents byassociation between family members of the respondents & type of hypertension**(n=105)** P value obtained from Pearson Chi-square (x^2) test, shows that P- value was 0.040 which was less than 0.05 that was statistically significant association between family members of the respondents & type of hypertension.* ***Table 22:*** *Distribution of the respondents byassociation between family members of the respondents & Marital status of the respondent **(n=105)** P value obtained from Pearson Chi-square (x^2) test, Table finds that P- value was 0.000 which was less than 0.05 that was statistically significant association between family members of the respondents &marital status of the respondent.* ***Table 23:*** *Distribution of the respondents byassociation between family members of the respondents & regular Blood pressure checkup is necessary **(n=105)** P value obtained from Pearson Chi-square (x^2) test,finds that P- value was 0.030 which was less than 0.05 that was statistically significant association between family members of the respondents &Regular Blood pressure checkup is necessary.* ***Table24 :*** *Distribution of the respondents byassociation between Preventive measures of Hypertension& Marital status of the respondent **(n=105)**,P value obtained from Pearson Chi-square (x^2) testTable finds that P- value was 0.001 which was less than 0.05 that was statistically highly significant association between Preventive measures of Hypertension&marital status of the respondent.* ***Table 25:*** *Distribution of the respondents byassociation between Preventive measures of Hypertension& Occupational status of the respondent **(n=105)** P value obtained from Pearson Chi-square (x^2) test, finds that P- value was 0.015 which was less than 0.05 that was statistically significant association between Preventive measures of Hypertension&occupational status of the respondent.*

Table26 : *Distribution of the respondents byassociation between Preventive measures of Hypertension& group age of the respondent (n=105) finds that P- value was 0.002 which was less than 0.05 that was statistically highly significant association between Preventive measures of Hypertension&group age of the respondent.*
Table 27: *Distribution of the respondents byassociation between Preventive measures of Hypertension& family members of the respondent **(n=105)** P value obtained from Pearson Chi-square (x^2) test finds that P- value*

was 0.004 which was less than 0.05 that was statistically highly significant association between Preventive measures of Hypertension &family members of the respondent.
Table 28 : *Distribution of the respondents byassociation between Preventive measures of Hypertension & Living status of the respondent (n=105) P value obtained from Pearson Chi-square (x^2) test Table finds that P- value was 0.023 which was less than 0.05 that was statistically significant association between Preventive measures of Hypertension&Living status of the respondent.*
Key Word: *Hospital, inpatient, patient satisfaction.*

I. Introduction

Hypertension is a major contributor to the global disease burden. It poses an important public health challenge to both economically developing and developed countries, including Asia.Hypertension is a common clinical problem in the emergency in our population. Established hypertension is blood pressure above 95th centile regarding children's age , gender, and body weight. Diastolic pressure are aimed at establishing blood pressure levels, identifying secondary causes of hypertension and evaluating the possible cardiovascular risk factors. Therapeutic intervention includes both lifestyle changes and pharmacologic therapy. The goal of the therapy is to reduce blood pressure to levels lower than the 90th percen6tile for both systolic and diastolic blood pressure for similar, gender age and group. By reducing blood pressure to to normal range, long-term cardiovascular morbidity, and mortality may be in disciplinary process, which includes regional experts to draw up recommendations specifically directed toward the management of patients at the local level.

Non-fatal and fatal CVD events, including CHD and stroke, as well as renal diseases and all cause mortality, increase progressively with higher levels of both SBP and DBP. However unawareness of elevated BP and inadequate control of hypertension are frequent. Kastarinen et al (2000) found that 6.8% of hypertension men aged 25-64 years were untreated and un ware of their hypertension , 9.4% were aware but untreated and 12.3% were treated with drugs while 71.5% of men were normotensive in 1997. The corresponding prevalence in women were 2.9% , 5.8% 10.1% and 81.25 in 1997 during 1982-1997 thee proportion of subjects not aware of their hypertension decreased consistently for both sexes.

The proportion in adult population having hypertension or taking antihypertensive medication varies with (1) race, being higher in blacks, (32.4%) and lower in whites (23.3%) and Mexican Americans (22.6%), (2) age because in the industrialized countries , systolic Bp Continues to rise throughout life, whereas diastolic BP rises until age 55 to 60 years, and thus the greater increase in the prevalence of hypertension is mainly due to systolic hypertension, 93) geographic patterns because hypertension is more prevalent in the southeastern united states , (4) gender because hypertension is more prevalent in men (through menopause tends to abolish this difference, and (5) socioeconomic status which is an indicator of life style attributes and inversely related to the prevalence morbidity and mortality rates of hypertension(carretero & Oparil 2000).

The main focus of primary prevention of cardiovascular diseases. Although many studies have been concluded worldwide only fes studies have been published on risk factors for poor control among hypertensive patients in Sri Lanka. According to Heymann et al it has been suggested that patients knowledge on hypertension and its management as well as physician counseling on a healthy lifestyle ans self-care have an independent effect on hypertensive patients compliance with the recommended lifestyle behaviors. Meanwhile factors associated with poor control of hypertension are modifiable through tailored, culturally appropriate patient education and treatment strategies. Increasing awareness of hypertension and more effective treatment of patients is

II. Material And Methods

Type of study: It was a descriptive type of study with Cross Sectional. Research design is the overall arrangement of linking the theoretical research problems to relevant and realistic empirical research (Ghaur i & Gronhaug, 2005, p. 56). It is also useful for researcher to make rational choices and prioritize the preferred method of collecting and analyzing research data. However, Sau nders et al (2007, p. 131) describe the research design as a general plan that shows how the researcher answer the research question or problem.
Research Period: One year 1st January 2011 to 31th December 2011 .
Study Population: The nurse who are agreed in this interview. The study population are 300 senior staff nurse of National Heart foundation Hospital & Research institute Mirpur 2 Dhaka.

Inclusion Criteria
2. Willing to provide the answer to the interview.
3. the staff who has experience more than 03 years' min relevant field

Exclusion Criteria

1. the nurse who were not agreed or not interested in this study interview.
2. Below experience 01 year.
3. Staff who are leave sick.

Sample Size: 105 staff Nurse of **national Heart Foundation Hospital and Research institute, Mirpur-2 Dhaka 1216.**

Sampling Method: The study population are 300 we and decide the sample size 100 with divided by the 3 and then we done lottery from 1,2,3 and decide first (2) two within 3 first sample is 2 after then each next interval & choice the hundred sample accordingly.

Data Collection instrument: a structured interview schedule was developed both open and close ended questionnaire which used for collection of information. The questionnaire were prepared and pre tested on a small number of respondent s in **national Heart foundation Hospital and Research institute, Mirpur-2 Dhaka 1216. Other form are**

- Using available information
- Observing
- Administering written questionnaires.

Data collection Procedure: before conducting of the study written permission from the authority of hospital before collecting the relevant information the purpose of this study was descrived to the nurses. Data were collected from the respondent through face to face interview using and open and close ended questionnaire. One questionnaire is used for individual respondent.

Research Instruments: Questionnaire, pen, computer

5 points likert scales are used for satisfaction level measured.

Data analysis: after collected data were cleaned, edited, manually and then entered into computer. Questions from interview guide were coded before data entry. Data entry was done using Epi Info software. Statistical analysis was done both manual and using SPSS version 16.0 computerizing. Microsoft Excel & word.

Ethical Consideration

- Maintained all ethical issues regarding research, regarding data collection, maintain confidentiality of data etc.
- Justice: Refers to the ethical obligation to treat each person in accordance with what is normally right & proper.
- Privacy was maintained regarding their identity and their information

Limitation:

- time limitation to take a large sample size
- only 1 hospital was included in the study which does not reflect the situation
  of whole city or nation.
- only outpatient department was considered in the study which may not reflect the service provided by hospital as a whole.

Types of questions: Both close & open ended question& in form of Bengali & English.

Utilization of results: for future research reference and will benefit for human and SCHS authority.

Tab. 1. Distribution of Socio-Demographic Characteristics of Patients		
s.no	Sociodemographic factors	Frequency (N=105)
1	Gender	Male-03 Female- 102
2	Age	≤ 20 years- 4 21-30 years- 19 31-40 years- 36 41-50 years- 44 51-60years- 2
3	Marital status	Married-52 Unmarried-42 Widow-09 Divorced 02
4	Religion	Hindu-25 Muslim-56 Chraistian-14 Buddisht-08 others-02
5	Education	Ssc level -02 Hsc level -21 Diploma -52

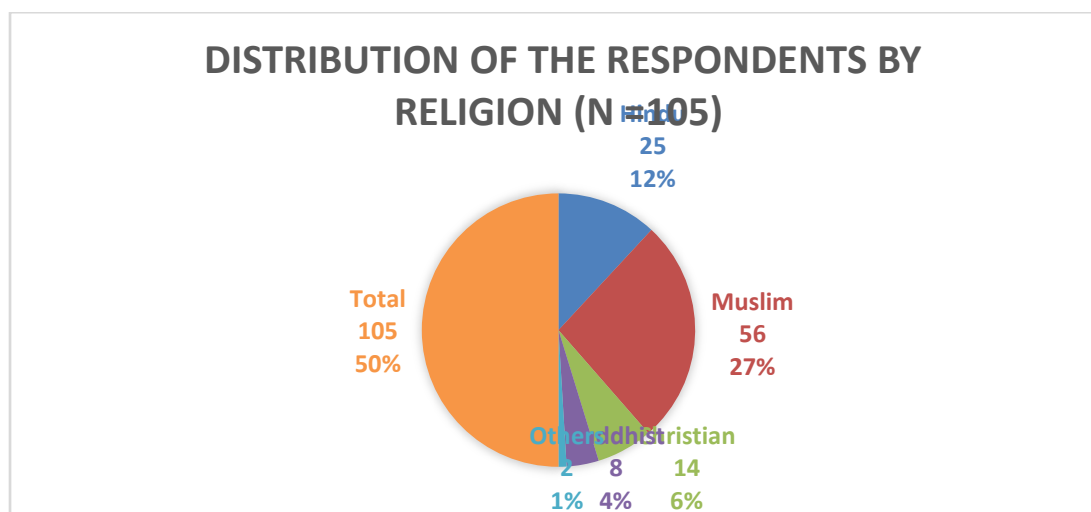| 6 | Occupation | Bsc Nursing-07
Msc/MPH-23 |
		Occupation Govt service-37 Private service-42 Student nurse-24 Ngo Nurse-01 Others 01
7	Living status	Rural -49 urban- 56
8	family members	Person-10 3-4Person-67 5-6 Person-27 7-8 Person-11

1.3 Rational and Justification

This study is designed to find out the senior staff nurses Knowledge Regarding Management of hypertension of National Heart Foundation Research Institute and Hospital Mirpur 2 Dhaka.

Hypertension management is one of the more important tasks of the senior staff nurses in the hospital as well as giving preventive care about the risk factor of hypertension. Effective management of hypertension can reduce the risk of developing stroke, and will reduce further disability or even risk of death of the client & helps them promotion of their illness restoration of health etc.

This study will provide base line information about the present level of knowledge regarding management of hypertension among the nurses that will help them in future to design appropriate education information program me for nurse's in view to improve their knowledge & equipped them necessary skills consequently nurses would be able to impact information & creating awareness among the people about preventive & treatment of hypertension.

Adults over 18 years should have their blood pressure checked regularly. Lifestyle changes may help to control blood pressure.

III. Results &Discussion

DISTRIBUTION OF THE RESPONDENTS BY RELIGION (N =105)

Hindu 25 12%
Muslim 56 27%
Total 105 50%
Other 2 1%
Buddhist 8 4%
Christian 14 6%

the above table shows that, 53.3%, was Muslim, 23.8%, was Hindu, 13.3%, were Hindu 7.6% were Christian, and 1.9% of the respondents belonged to the religion , respectively.
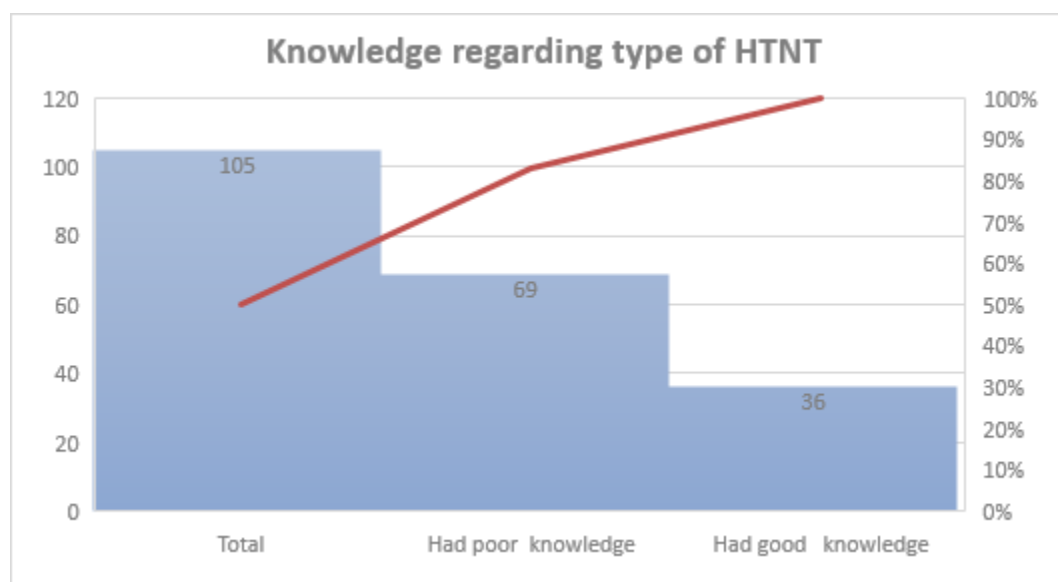
The above Table found that 65.7% respondent were good knowledge & 34.3% respondent were poor knowledge about types of Hypertension.

Table 17 : Distribution of the respondents byassociation between age group of the respondents & religion of the respondents (n=105)

Age Group	Religion of the respondent						Chi-square (x^2)	P-value
	Islam	**Hindu**	**Buddish**	**Christian**	**Others**	**Total**		
≤ 20 Yrs	2	2	0	0	0	4		
21-30 Yrs	14	5	0	0	0	19		
31-40 Yrs	17	12	0	7	0	36	**26.199**	**0.051**
41-50 Yrs	21	6	8	7	2	44		
51-60 Yrs	2	0	0	0	0	2		
Total	**56**	**25**	**8**	**14**	**2**	**105**		

P value obtained from Pearson Chi-square (x^2) test

Table finds that P- value was 0.024which was less than 0.05 that was statistically significant association between age group of the respondents & religion of the respondents.

Table 18: Distribution of the respondents byassociation between age group of the respondents & family members of the respondents (n=105)

Age Group	Religion of the respondent					Chi-square (x^2)	P-value
	2 person	**3-4 person**	**5-6 person**	**7-8 person**	**Total**		
≤ 20 Yrs	1	2	1	0	4		
21-30 Yrs	7	9	2	1	19		
31-40 Yrs	2	22	7	5	36	**31.750**	**0.002**
41-50 Yrs	0	24	15	5	44		
51-60 Yrs	0	0	2	0	2		
Total	10	57	27	11	105		

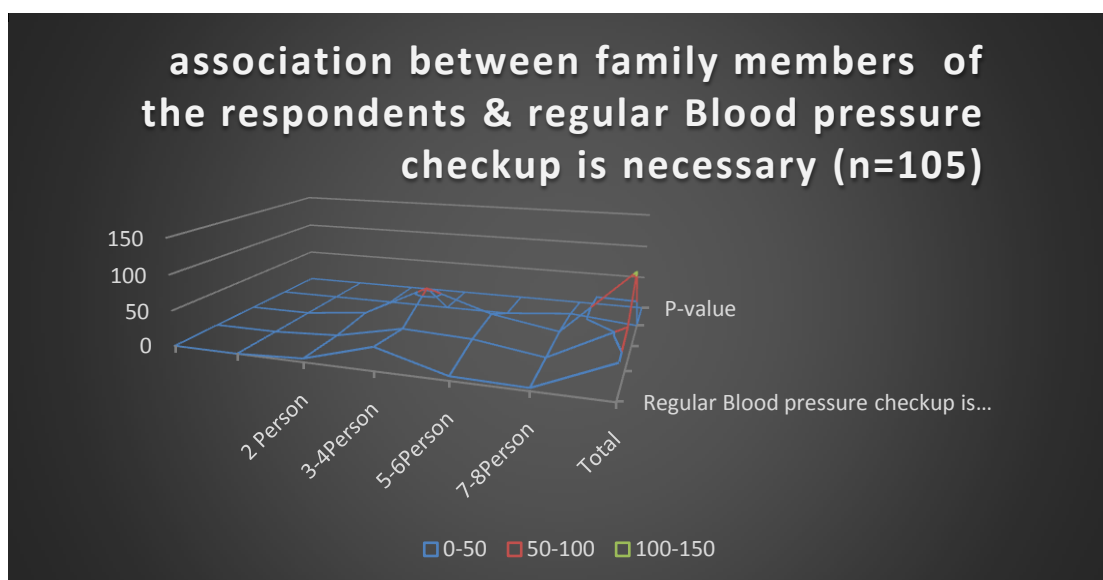P value obtained from Pearson Chi-square (x^2) test

Table finds that P- value was 0.002 which was less than 0.05 that was statistically highly significant association between age group of the respondents & family member of the respondents.

Table19 : Distribution of the respondents byassociation between age group of the respondents &Regular Blood pressure checkup is necessary of the respondents (n=105)

Age Group	Regular Blood pressure checkup is necessary			Chi-square (x^2)	P-value
	Yes	No	Total		
$\leq$ 20 Yrs	0	4	4		
21-30 Yrs	13	6	19		
31-40 Yrs	16	20	36		
41-50 Yrs	18	26	44	9.429	0.051
51-60 Yrs	0	2	2		
Total	47	58	105		

P value obtained from Pearson Chi-square (x^2) test

Table finds that P- value was 0.051 which was less than 0.05 that was statistically significant association between age group of the respondents &regular Blood pressure checkup is necessary.

P value obtained from Pearson Chi-square (x^2) test

Table finds that P- value was 0.030 which was less than 0.05 that was statistically significant association between family members of the respondents &Regular Blood pressure checkup is necessary.

Table 28 : Distribution of the respondents byassociation between Preventive measures of Hypertension& Living status of the respondent (n=105)

Preventive measures of Hypertension	Living status of the respondent			Chi-square (x^2)	P-value
	Rural	Urban	Total		
Control BP level	2	1	3		
Maintain Sodium level	32	40	73		
Avoid tobacco, jadda, Gul, alcohol	2	11	13		
Free from tension and anxiety	11	3	14	11.391	0.023
Regular exercise	1	1	2		
Total	49	56	105		

P value obtained from Pearson Chi-square (x^2) test

Table finds that P- value was 0.023 which was less than 0.05 that was statistically significant association between Preventive measures of Hypertension& Living status of the respondent.

Conclusion (11 Bold) Patients with hypertension had inadequate knowledge on the disease, its complications and management strategies. Knowledge on salt intake, tobacco Consumption, body weight maintenance and fruits and vegetable consumptions was particularly low. Health care providers need to

deliver appropriate knowledge to patients with hypertension on control measures, adverse consequences of Hypertension and management strategies.

Limitation:
▪ As study areas were selected purposively & the study was conducted only admitted patient, the results may not be generalized overall scenario of patient's satisfaction in Bangladesh.
▪ This academic study was conducted with shortage of time and shortage of financial support and location.

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