



Level of preventive practices against hypertension among the OPD attendants of Shaheed Ziaur Rahman Medical College, Bogura

Md. Ridwan-Ul-Rabbi¹, A. B. M. Shafiul Alam^{2*}, Md. Moniruzzaman³

¹Human Resource Management, Faculty of Business Studies, Jahangirnagar University

²Senior Scientific Officer, Bangladesh Institute of Nuclear Agriculture (BINA), Mymensingh-2202, Bangladesh

³Scientific Officer, Bangladesh Fisheries research Institute (BFRI), Mymensingh-2201, Bangladesh

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ABSTRACT

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Corresponding Author

A. B. M. Shafiul Alam

Email:

shafiulalamshahed@gmail.com

Hypertension (HTN) is an important public health challenge in Bangladesh. The purpose of this cross-sectional study was to assess the level of preventive practices against hypertension among the OPD (Outdoor Patient Department) attendants in Shaheed Ziaur Rahman Medical College, Bogura. We examined 245 conveniently selected hypertensive patients who were admitted to the selected hospital through a self-structured questionnaire and a detailed face to face interview. Result revealed that among the attendants 61.6% were males and 38.4% were females. Most of the respondents were 40 to 60 years old. The level of preventive practices of HTN were both good (48.24%) and bad (51.8%). Only 26.12% of respondents were knowledgeable about signs of hypertension whereas 73.88 % were not knowledgeable on it. Only 31.43% of respondents were no knowledge about symptoms of hypertension whereas 68.57 % were known the symptoms of hypertension. Only 4.90% of hypertensive patients were knowledgeable about the effects of hypertension and the little (22.04%) had no idea. Most of the respondents (73.06%) were not known about the effects of hypertension. 7.41 % of respondents were aware of the prevention of hypertension whereas most of the respondents (92.59%) were not aware that how to prevent hypertension. Only few (0.41%) were strongly agreed to maintain a hypertensive diet to prevent hypertension. In the present study on KAP (Knowledge Attitude and Practices) of Hypertension, it was revealed that though all the respondents had heard the name of hypertension or high Blood pressure, but their knowledge regarding the cause, symptoms, contraindication, effects, prevention, control and risk factors of the disease is vague and inadequate. Majority of the respondents had partial knowledge about the cause and effect of hypertension.

Introduction

Hypertension has become a significant problem in many developing countries experiencing epidemiological transitions from communicable to non-communicable chronic diseases. The emergence of hypertension and cardiovascular disease (CVD) as a public health problem in these countries is strongly related to the aging of the populations, urbanization and socio-economic change favoring sedentary habits, obesity, alcohol consumption, and salt intake, among others (Dodu, 1988). Cost-effective use of health services to control these emerging chronic diseases is particularly needed in developing countries because resources are limited and generally must be shared with the concurrent burden of persistent communicable diseases (Kumar et al., 2002). In this context, hypertension presents a major area of intervention because it is a frequent condition and is amenable to control through both non-pharmacological lifestyle factors and pharmacological treatment (Bener, 2004). Pharmacological treatment for HTN is effective in decreasing BP and subsequently cardiovascular

events, although BP labels achieved treated patients may still be considerably higher than those in truly normotensive person. Lifestyle measures for lowering BP include reduced alcohol intake, reduced-sodium chloride, increased physical activity, and controlling overweight (Njelekela et al., 2001). Lifestyle intervention also has the potential to reduce the need for or the amount of medication in hypertensive and prevent high BP from developing in non-hypertensive. Furthermore, lifestyles interventions are instrumental in controlling other concomitant cardiovascular risk factors not necessarily related to hypertension, such as smoking, raised cholesterol level, or Diabetes hence the importance of a multifactorial approach to effective risk reduction in hypertensive (Daniel and Rotimi, 2003).

Bangladesh is a tropical country. Climates, psychosocial problems, illiteracy, eating habits, lack of infrastructure facilities of games and sports, adulteration food commodity, hereditary are mostly responsible for hypertension of the people. Therefore, knowing of knowledge to control the disease is very important. Hypertension is an

interesting disease entity of its own. It remains silent, being generally asymptomatic during its clinical course. As it is hidden beneath an outwardly asymptomatic appearance, the disease does immense harm to the body in the form of 'Target Organ' damage; hence, the WHO has named it the 'Silent Killer'. The prevalence of hypertension is increasing in trend. As most of the urban areas have access to health facilities, the hidden mass of hypertension in the community can be detected and treated. However, the situation is reversed in rural areas. A majority of the rural population in Bangladesh and India have inadequate access to healthcare. Over half of the outpatient consultations are with indigenous and private practitioners, where regular screening for hypertension is not practiced.

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A majority of the rural population in Bangladesh and India have inadequate access to healthcare. Over half of the outpatient consultations are with indigenous and private practitioners, where regular screening for hypertension is not practiced.

Clinic-based (Opportunistic) screening of hypertension will not screen and detect a large proportion of adult hypertensive. In turn, they will not seek healthcare from the formal health sector, until seriously ill. Community-based screening can improve the detection and treatment of Hypertension. Fewer studies have been undertaken in rural Bangladesh (Khan, 2003). In this study, we will be examined the level of preventive practices against hypertension and associated risk factors of adults who are OPD attendants of Shaheed Ziaur Rahman Medical College, Bogura.

Material and Methods

This study was conducted in Shaheed Ziaur Rahman Medical College, Bogra. Study design was Cross-Sectional Descriptive Study. Target population was all OPD in 2016. The sampled population of the study was the OPD attendants of Shaheed Ziaur Rahman Medical College, Bogra in 2016. Duration of the study was 6 months. (June 2016 to October 2016). To take the maximum sample size here it was considered 50% probability to success, so the basis

of statistical point of view the following formula was used for estimating sample for the proposed study. Here the target population was about 900. In this hospital daily about 30 patients were admitted to the OPD ward. Data collection duration was about one month ($30 \times 30 = 900$).

Inclusion Criteria

Both male and female attendants of SZMC, Bogra and patients with hypertension who were willing to give verbal and written consent, were included in this study.

Exclusion Criteria

Attendants who were unable to respond and those who were admitted to the inpatient department, were excluded in this study.

Sampling Technique

A purposive sampling technique was adopted for selecting respondents.

Data Collection Technique and Tools

Data collection was a face-to-face interview. It was conducted with a structured questionnaire which was developed and pre-tested before the interview. A letter of consent was distributed to all respondents. The questionnaire was designed in English and Bangla for the respondents. This was designed according to the objectives and variables stated in the study.

Data Management and Analysis Plan

After collection of data, data was checked and entered and analyzed using data screening, descriptive studies. Independent variables were tested through the Chi-square test, Odd Ratio and Multivariate logistic regression. Software SPSS was used for analysis.

Quality control and Quality assurance

For maintaining quality control and quality assurance of the study data was collected by the researcher himself. The designed questionnaire was pre-tested, assessed the feasibility, and modified before use in actual data collection. Special training was conducted for interviewers.

Face-to-face interviewing was taken in the local language. Spot supervision and re-interviewing (5%) was done by Researcher himself. Data analysis and final report writing were conducted by Researcher himself. Quality also was ensured during data analysis and report preparation with the necessary guidance from the department of public health, NSU.

Ethical Consideration

The nature and purpose of the study were explained before data collection to the respondents. Formal requests were taken from the appropriate authority for getting permission to collect data.

Informed consent was taken from every respondent. Privacy and confidentiality regarding the study was maintained strictly.

Limitation of the Study

The purposively selected sample may not represent all the attendants of the SZMC, Bogra, or the whole country; hence the finding of the study cannot be generalized.

Results

A descriptive cross-sectional study was conducted to the level of preventive practices against hypertension and associated risk factors of adults who are the OPD attendants of SZMC, Bogra. Our results also revealed insufficient self-care practices of cardiac patients towards their BP control. Our results suggest that patients are knowledgeable about HTN in general but are less knowledgeable about specific factors related to their conditions and specifically their level of BP control and patients have had knowledge is inadequate. Patients were unaware that SBP is important in BP control and reported that physicians did not emphasize the significance of high SBP levels.

In our present study, we got the level of preventive practice of hypertension were good 48.12% and poor 51.8%.

In our study, 73.88 % of the hypertensive patient didn't know the sign and symptoms of hypertension. In our study, 7.41 % of respondents were aware of the prevention of hypertension whereas most of the

respondents (92.59%) were not aware that how to prevent hypertension.

Patients were knowledgeable about the meaning of HTN, signs and symptoms, and the seriousness of the condition to their health. Ninety-six percent knew that lowering BP would improve health and 96% thought that people can do things to lower their high BP. Nearly 70% of patients knew that high BP could lead to congestive heart failure. Almost all patients were aware of their HTN with 91% reporting that a doctor or health care provider had told them that they have HTN. These findings are consistent with NHANES III data suggesting that there has been an increase in BP awareness

In our study, only 2.91% of respondents have attended a hypertension preventive program. The importance of hypertension awareness and knowledge and the potential impact of BP education programs have been reported on recently. Patients who were aware that elevated BP levels lead to reductions in life expectancy had a higher compliance level with medication use and follow-up visits than patients without this awareness (Balazovjeh and Hnilica, 1993). Surveys of hypertensive patients in three clinical sites showed that lack of knowledge concerning target SBP level was an independent predictor of poor BP control⁴⁴. Reductions in SBP and DBP and improved medication-use compliance have been achieved through an education program that stressed, in part, knowing high BP (Gonzalez-Fernandez et al. 1995). This recent research all points to the need to improve hypertension knowledge and awareness to increase medication-use compliance and BP control. In our study majority (73.06%) of the respondent had no idea of the effects of hypertension.

The study revealed that only 26.12% of respondents were knowledgeable about signs of hypertension whereas 73.88 % were no knowledge about the sign of hypertension.

It was observed that only 7.41 % of respondents were aware of the prevention of hypertension whereas most of the respondents (92.59%) were not aware that how to prevent hypertension

Table 1: Socio-demographic characteristics of respondents (n=245)

| Variables | Categories | Level of practise | | X ² -value | p-value |
|-----------------------|------------------|-------------------|------|-----------------------|--------------|
| | | Good | Poor | | |
| Age | <39 years | 30 | 29 | 1.31 | 0.519 |
| | 40-60 years | 56 | 55 | | |
| | 61 & above | 32 | 43 | | |
| Gender | Male | 71 | 80 | 0.206 | 0.37 |
| | Female | 47 | 47 | | |
| Marital Status | Married | 113 | 113 | 3.93 | 0.039 |
| | Single | 5 | 14 | | |
| Level of education | Illiterate | 67 | 66 | 7.14 | 0.128 |
| | Primary | 35 | 39 | | |
| | SSC | 12 | 8 | | |
| | HSC | 1 | 8 | | |
| | Graduation | 3 | 6 | | |
| Occupation | Business | 18 | 18 | 3.77 | 0.287 |
| | Service | 10 | 6 | | |
| | Student | 1 | 5 | | |
| | None | 89 | 98 | | |
| Monthly family income | <15,000 TK | 64 | 56 | 2.84 | 0.241 |
| | 15,000-25,000 TK | 37 | 52 | | |
| | >25,000 TK | 17 | 19 | | |

Table 2: knowledge related factors of respondents (n=245)

| Variables | Categories | Level of practise | | X ² -value | p-value |
|---|---------------|-------------------|------|-----------------------|--------------|
| | | Good | Poor | | |
| Knowledge about the sign of hypertension | Yes | 22 | 42 | 6.59 | 0.007 |
| | No | 96 | 85 | | |
| Knowledge about symptoms of hypertension | Yes | 78 | 90 | 5.78 | 0.009 |
| | No | 40 | 37 | | |
| Knowledge about effects of hypertension | Yes | 6 | 9 | 0.42 | 0.811 |
| | No | 84 | 95 | | |
| | Little idea | 28 | 26 | | |
| Measures for hypertension | Diet | 2 | 4 | 3.36 | 0.338 |
| | Exercise | 0 | 3 | | |
| | Drug | 106 | 111 | | |
| | Daily walking | 5 | 6 | | |
| Attend hypertension seminars or programs. | Yes | 1 | 6 | 3.31 | 0.073 |
| | No | 117 | 121 | | |

Table 3: Attitude towards prevention of hypertension of respondents (n=245)

| Variables | Categories | Level of practise | | X ² -value | p-value |
|---|----------------------------|-------------------|------|-----------------------|---------|
| | | Good | Poor | | |
| Maintaining daily diet help to prevent hypertension | Strongly agree | 0 | 1 | 3.07 | 0.54 |
| | Agree | 10 | 13 | | |
| | Neither agree nor disagree | 52 | 64 | | |
| | Disagree | 51 | 43 | | |
| | Strongly disagree | 5 | 6 | | |
| Daily physical exercise can prevent hypertension | Strongly agree | 0 | 0 | 2.26 | 0.52 |
| | Agree | 17 | 14 | | |
| | Neither agree nor disagree | 58 | 57 | | |

| | | | | | |
|--|----------------------------|----|----|------|-------|
| | Disagree | 38 | 52 | | |
| | Strongly disagree | 5 | 4 | | |
| | Strongly agree | 3 | 6 | 1.55 | 0.763 |
| | Agree | 28 | 34 | | |
| Taking risky drinks is good for hypertension | Neither agree nor disagree | 26 | 30 | | |
| | Disagree | 55 | 50 | | |
| | Strongly disagree | 6 | 7 | | |
| | Strongly agree | 1 | 1 | 2.07 | 0.722 |
| | Agree | 14 | 14 | | |
| Smoking is good for hypertension | Neither agree nor disagree | 22 | 26 | | |
| | Disagree | 69 | 66 | | |
| | Strongly disagree | 12 | 20 | | |

Attitudes towards prevention of hypertension of respondents

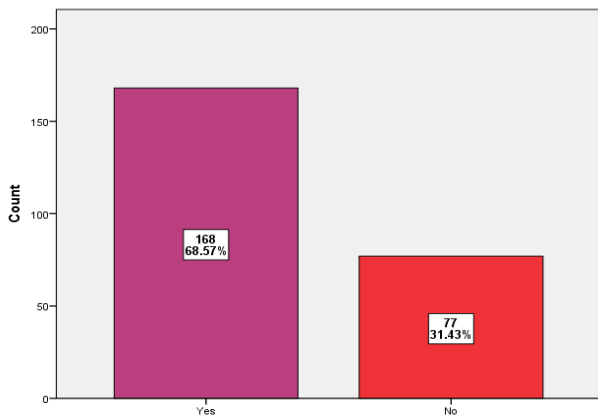


Figure 1: Distribution of respondents by their knowledge of symptoms of hypertension

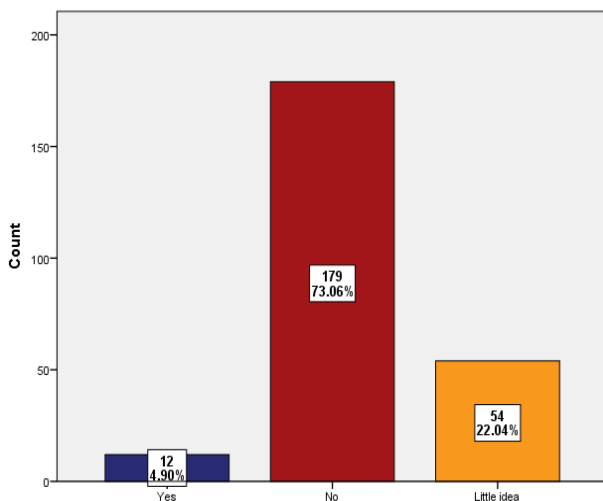


Figure 2: Distribution of respondents by their knowledge on effects of hypertension

It is shown that only 31.43% of respondents were no knowledge about symptoms of hypertension whereas 68.57 % were known the symptoms of hypertension (Figure 1).

Figure 2 shows that only 4.90% of hypertensive patients were the knowledge about the effects of hypertension and the little idea was 22.04%. Most of the respondents (73.06%) were not know about the effects of hypertension.

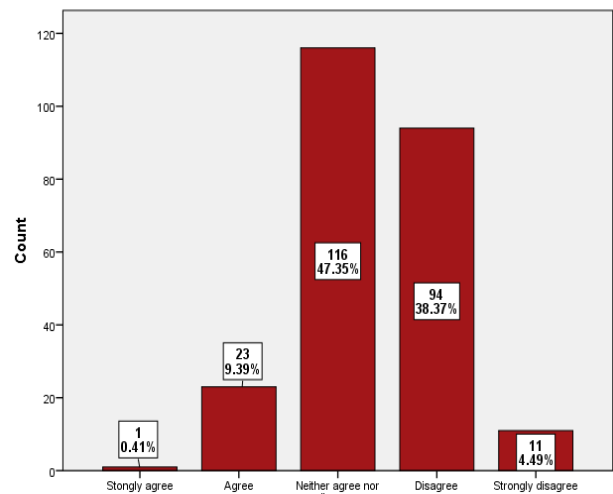


Figure 3: Distribution of respondents by their attitude on maintaining diet to prevent hypertension

It is observed that the lowest and negligible percent of respondent (0.41%) were the strongly agree to maintain a hypertensive diet to prevent hypertension. Agree, neither agree nor disagree, disagree and strongly disagreed respondents were 9.39%, 47.35%, 38.37%, and 4.49% respectively (Figure 3).

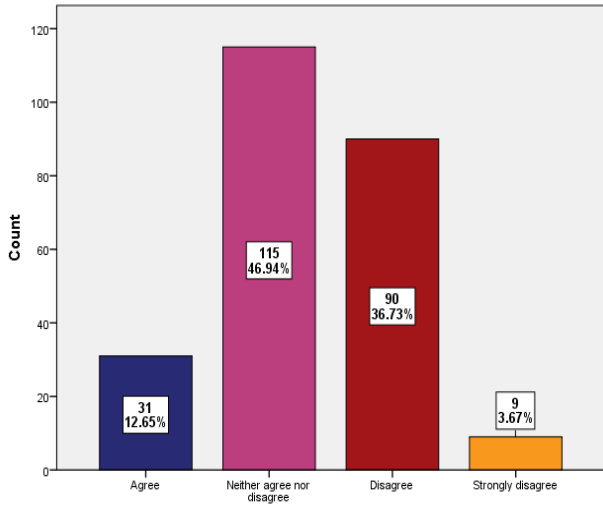


Figure 4: Distribution of respondents by their attitude on exercise can prevent hypertension

Data shows that 12.65% respondent agreed with daily physical exercise which can prevent hypertension. Neither agree nor disagree, disagree and strongly disagree respondents were 46.94%, 36.73%, and 3.67% respectively (Figure 4).

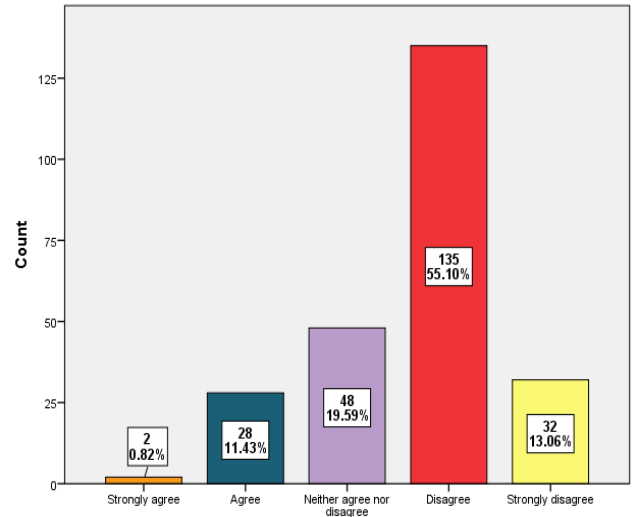


Figure 6: Distribution of respondents by their attitude on smoking is good for hypertension

It is observed that 0.82% respondents were strongly agreed with smoking is good for health. Agree, neither agree nor disagree, disagree and strongly disagree respondents were 11.43%, 19.59%, 55.10%, and 13.06% respectively (Figure 6).

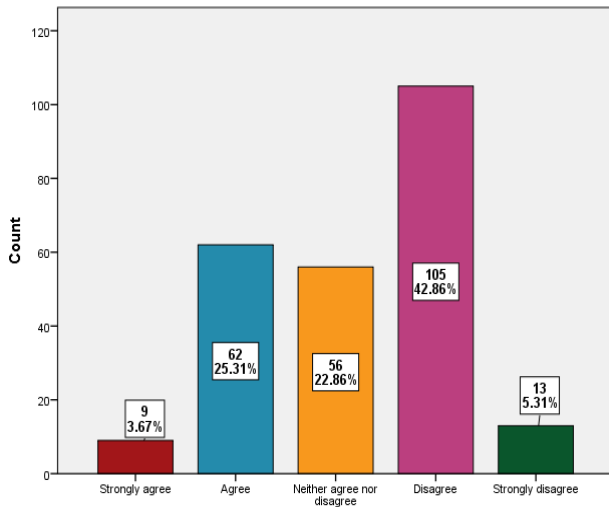


Figure 5: Distribution of respondents by their attitude on the taking of risk drinks is good for hypertension

Figure 5 shows Only 3.67% strongly agree about taking risky drinks. Agree, neither agree nor disagree, disagree and strongly disagree respondents were 25.31%, 22.86%, 42.86%, and 5.31% respectively.

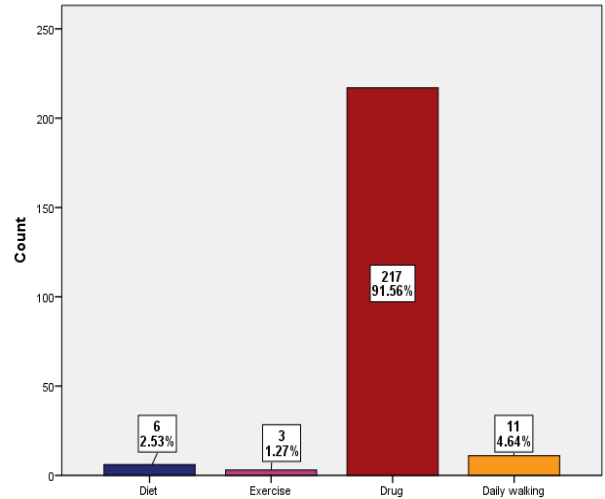


Figure 7: Distribution of respondents by measures taken for hypertension

Figure 7 shows that 91.56% of respondents were taking drugs for hypertension. Only 1.27% was depended on exercise and diet, daily walking 2.53% 7 4.64% respectively.

Discussion

A descriptive cross-sectional study was conducted to the level of preventive practices against hypertension and associated risk factors of adults who are the OPD attendants of SZMC, Bogra. Our results also revealed insufficient self-care practices of cardiac patients towards their BP control. Our results suggest that patients are knowledgeable about HTN in general but are less knowledgeable about specific factors related to their condition, and specifically their level of BP control and patients have had knowledge is inadequate. Patients were unaware that SBP is important in BP control and reported that physicians did not emphasize the significance of high SBP levels.

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In our study majority (73.06%) of the respondent had no idea of the effects of hypertension.

Recommendation

A training program for the primary prevention of cardiovascular disease should be initiated. Education and information should include basic anatomy and physiology; the role of nutrition; physical inactivity, body weight, smoking, and alcohol in the causation of hypertension. Patients suffering from hypertension should be given culturally accurate dietary and lifestyle information. Prevention programs on special hypertension should arrange in every care setting for the prevention of HTN. Health education is one of the major factors that largely help to prevent HTN.

Conclusion

In the present study on KAP of Hypertension, it was revealed that though all the respondents had heard the name of hypertension or high Blood pressure, but their knowledge regarding the cause, symptoms, contraindication, effects, prevention, control, risk factors of the disease is vague and inadequate, majority of the respondents had partial knowledge about the cause and effect of hypertension.

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