Pattern of health behavioral practices of hypertensive patients and factors influencing them, KKUH, Riyadh, 2009.

Controlling blood pressure remains a difficult task for hypertensive patients. Besides pharmacological treatment, several life-style amendments have to be made to reach target blood pressures (BP). This cross sectional study aims to gain insight into efforts of hypertensive individuals to control their BP, and the effect of their demographic features, knowledge and health status on these efforts. This study was conducted by face to face interview of hypertensive patients at the primary health care clinics of King Khalid University Hospital, Riyadh, Saudi Arabia. The study population consisted of all adult Saudis of both genders, between 18-70 years old, diagnosed with essential hypertension for over one month, or was on hypertension treatment. Data were collected on a pre-designed form consisting of sociodemographic information, detailed health history relevant to the hypertension, a knowledge component and inquiry on healthy practices of participants. A cumulative knowledge score was created. Each knowledge question was given a score of 1 if the answer was correct and 0 if the answer was incorrect. The result was stratified into high and low knowledge scores.

Among male participants, the mean age was 53.5 years, 92% were married, 24% were illiterate, 44% were retired, 35% had full time work, 9% part time and 12% were unemployed. Almost half (46%) had a monthly income ranging from 5000-9000 riyals. Their mean diastolic BP was 79.5 mmHg, being over 90 mmHg among 19%. Their mean systolic BP was 135.5 mmHg, being over 140 mmHg among 49%; 43% had been hospitalized in the previous year as a consequence of high BP, 12% were employed. Influencing factors among males were marital status (p=0.007), education of at least high school (p=0.001), and employment (p=0.033).

Only 35% of males followed a dietary regimen to control BP; only 9% always avoided fatty or fried foods and only 9% always minimized salt intake. Among females, only 34% followed a dietary regimen; 32% always avoided fatty or fried foods, and 29% always minimized salt intake.

Regarding physical exercise, 38% of males never exercised, 34% exercised regularly, and 28 exercised irregularly. Factors influencing physical activity among males were marital status (p=0.024), education of at least high school (p=0.001), and income over 5000 riyals (p=0.027). Among females, 58% never exercised, 10% regularly exercised, and 32% exercised irregularly. Factors influencing physical activity among females were age under 50 (p=0.003), income over 5000 riyals (p=0.03), disease duration under 4 years (p=0.002) and high knowledge (p=0.011).

Regarding hospital follow up, 77% of males reported regular follow up every 3 months or less, 12% every 6 months, 4% annually and 7% occasionally. Among females, 67% had regular follow up every 3 months or less, 19% every 6 month, 6% annually and 8% occasionally.

Fifty percent of males had received advice to monitor BP at home, among whom 18% checked it daily, 14% on alternate days, 16% weekly, 26% monthly and 26% occasionally. Among females, 32% had received this advice, among whom 12.5% checked it daily, 6.3% on alternate days, 28.1% weekly, 15.6% monthly and 37.5% occasionally. The only factor influencing home BP monitoring among females was married status (p=0.03).

Regarding use of traditional therapy for BP control, 82% of males had never used any, 9% occasionally, 6% sometimes and 3% most of the times. Among females, 63% never, 23% occasionally, 9% sometimes, 4% most of the times and 1% always. The most commonly used traditional therapies were arugula leaves 70%, garlic 45.9%, flax seeds 5.4%, and marjoram (Bardakosh) 2.7%.

Regarding drug compliance, 62% of males always took their medication as prescribed, 26% most of the times, 9% sometimes, 2% occasionally and 1% never. Influencing factors among males were employment (p=0.007), education of at least high school (p=0.031), monthly income over 5000 riyals (p=0.009) and high knowledge (p=0.007). Among females, 77% always took their medications as prescribed, 5% most of the times, 7% sometimes, 6% occasionally and 5% never. The only influencing factor influencing drug compliance among females was high knowledge (p=0.03).

Table 1 demonstrates the knowledge status of participants by gender.

Among males, high knowledge was associated with high educational level of at least high school (p=0.001), monthly income over 5000 riyals (p=0.004), and disease duration of under 4 years (p=0.01). Among females, high knowledge was associated with age under 50 (p=0.017), education of at least high school (p=0.004), and employment (p=0.033).

The mean age of female participants was 50.6 years, 76% were married, 58% were illiterate, and 92% were unemployed. Almost half (49%) reported a monthly income from 5 to 9 thousand riyals. Their mean diastolic BP was 77.7 mmHg, and was above 90 mmHg among 6%. Their mean systolic BP was 141.7 mmHg, and was above 140 mmHg among 57%; 10% had been hospitalized in the previous year as a consequence of high BP, and 46% had drug regimens that included over 5 tablets per day for all diseases. Other chronic diseases included diabetes (51%), high cholesterol (44%), thyroid diseases (13%), osteoarthritis (12%), chronic heart diseases (10%), and bronchial asthma (10%); 72% did not know their recent BP reading.

Table 1: Knowledge status of hypertensive patients by gender, KKUH, 2009.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Total knowledge score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low knowledge</td>
</tr>
<tr>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Male</td>
<td>47</td>
</tr>
<tr>
<td>Female</td>
<td>53</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100</td>
</tr>
</tbody>
</table>

P-value: 0.479

(Continued on page 29)
Pattern of health behavioral practices of hypertensive patients, KKUH, cont.....

(Continued from page 28)

among females was married status (p= 0.01).

The study showed that males exercised more often than females (62% compared to 42%, p= 0.007), females smoked less than males (2% compared to 15%, p= 0.002), more males monitored their BP at home than females (50% compared to 32%, p= 0.01), females used traditional therapy more often than males (37% compared to 18%, p=0.004), and more males did not follow the prescription than females (38% compared to 23%, p=0.03).

- Reported by: Dr. Muhra M. Al-Alwy, Dr. Randa M. Nooh (Field Epidemiology Training Program).

Editorial notes: Hypertension is amenable to control through both nonpharmacological and pharmacological means. Nonpharmacological therapy is considered the first line in management. One of the primary lifestyle measures recommended for control of BP is physical activity, prescribed as 30 to 60 min of moderate intensity dynamic exercise (such as walking, jogging, cycling or swimming) four to seven days per week.1 Weight reduction is another important health practice. Maintenance of a healthy body weight (BMI of 18.5 kg/m2 to 24.9 kg/m2; waist circumference of <102 cm for men and <88 cm for women) is recommended.2 Hypertensive patients should consume a diet emphasizing fruits, vegetables, low-fat dairy products, dietary and soluble fiber, whole grains and proteins from plant sources, and one that is reduced in saturated fats and cholesterol (Dietary Approaches to Stop Hypertension [DASH] diet).3 Minimization of salt intake is another important dietary habit. Other healthy behaviors include cessation of smoking, compliance to treatment, and monitoring BP at home, since regular checkup can help in bringing it under control.4 Healthy behaviors of hypertensive patients have been investigated in several studies. In a study conducted in Kuwait among 132 hypertensive patients, 64% had uncontrolled hypertension. Poor compliance along with a sedentary lifestyle were the major determinants of poor BP control.5 In Saudi Arabia, few studies have investigated healthy behavioral practices of hypertensive patients, and most were mainly focused on compliance to therapy.6,7

This study has shed some light on healthy lifestyle practices of hypertensive patients, and has showed that both socioeconomic factors and patient knowledge have an influence on these practices. This information may help shape the policy for health care, education and research to reduce adverse consequences of hypertension in the Kingdom.

References

Transportation of emergency cases by SRC, cont ...

(Continued from page 26)

Another justification is that quiet a few cases handled by the SRCS teams were assessed as mild illnesses and were not transported to the health facilities, but were included in the listing of diagnosis of cases; whereas Dhaffar’s study described only the cases received at the hospital emergency room, who are, in fact, the more severe cases than those observed in the field.

Although crowdedness in Mina was extreme during the time this study was conducted, the response time revealed in this study is remarkable. As compared to Al-Ghamdi’s study on emergency medical service rescue times in Riyadh, which reported an average rescue time of 35.8 (± 6.4) minutes, the response time in this study was 10.23 (± 5.6) minutes. However, this could have been achieved because of the close locations of the centers to the Hajjis camps, particularly in the Mina area, allowing faster accessibility to the nearby camps; in addition to the small size of Mina, as compared to Riyadh city.

This study showed that there was very poor communication and coordination between the SRCS staff and MOH staff before transporting cases to ER. This poor communication and coordination may lead to delay in accepting cases in ER or arranging for beds if they require admission, which may be life threatening and may prevent the EMT team from responding to other emergency calls.

References: