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# Knowledge, Attitude and Practice of Hypertensive Patients Toward Hypertension.

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**Background**

HT is among the leading causes of mortality globally, impacting all economic classes in all nations[1, 2]. As per international health records from 2012, it affects 29.2 percent of males and 24.8 percent of females[1]. Furthermore, in 2004, HT was associated with 7.5 million fatalities out of 58.8 million deaths worldwide, making it a leading cause of early deaths in the world[3].

HT levels are extremely increased in Saudi Arabia (SA), where it was documented between 1995 and 2000 to vary from 26.1 percent among the 30–70 year old population, and in 2005 to range from 25.5 percent among the 15–64 year old age group[4, 5]. According to 2010 estimations, HT was classified as the leading cause of death in South Africa[6]. Patients with unmanaged HT can provide a significant burden to the healthcare system, necessitating the development of additional remedies to reduce the potential liability of HT in South Africa[4].

Hypertension is a prominent area of attention since it is a common illness that may be controlled with both nonpharmacological lifestyle variables and therapeutic interventions. Although antihypertensive drugs have been used to manage blood pressure, there is a

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significant focus on the treatment and prevention of Hypertension using non - pharmacologic approaches referred to as lifestyle changes [7-9]. Salt limitation, reduction of alcohol intake, high intake of fruits and vegetables, low-fat, weight loss and management, and regular physical activity are among the suggested lifestyle modifications that were demonstrated to reduce blood pressure. Patients with hypertension, regardless of stage or severity, should be encouraged to take these precautions. Empowering patients to make lifestyle adjustments is among the most difficult parts of Hypertension management [10].

Knowledge is a corner stone in the management of hypertension along with positive attitude and good practice[11, 12] thus this study is assessing the level of knowledge, attitude and practice of hypertensive patients toward hypertension.

**Methods:**

**Study design and sample:**

A descriptive cross-sectional study.

**Study population and sample size:**

The study included 200 hypertensive patients who were admitted to the hospital during the last 3 month. The sample size was calculated using 95% confidence level with an absolute precision of 5% and an expected prevalence rate of 80%, yielded a minimum sample size of 120 patients[13].

**Study tools and data collection:**

The research is founded on a questionnaire sheet that wasadvanced after reviewing the Science Direct, Scopus, Pubmed …etc. The questionnaire was then translated into simple Arabic language. The questionnaire and it's scoring was conducted according to a previous study which was validated and tested [14]. Also, a pilot study was conducted on 20 patients from which 10 were males and 10 were females to ensure the validity of the questionnaire and the patients enrolled in the pilot study were excluded from the original data in the study.

**Ethical approval:**

Informed consent to be taken from each and every participant. Permission of medical health committee of the hospital was granted.

**Statistical analysis*:***

All data were collected and analyzed using IBM SPSS software for Windows ver. 21.0.P-values <0.05 were considered statistically significant.

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**Results:**

**Demographics of the studied subjects:**

The basic characteristics of the included subjects were shown in Table. 1. Also, the duration of illness was reported in table. 1 as 11% suffered from hypertension for less than 5 years, 19% for 5-10 years, 24% for 10-15

years, 38% for 15-20 years and 8% for more than 20 years.

**Table (1):Demographics of included subjects**

| | | |
|---|---|---|
| | | |
| 0-50 | | |
| 0-60 | | |
| 0-70 | | |
| 70 | | |
| ange | | |
| ean±SD | 10.754 | |
| | | |
| ale | | |
| emale | | |
| **of education** | | |
| rimary | | |
| termediate | | |
| econdary | | |
| igh education | | |
| **ion of hypertension** | | |
| 5 | | |
| -10. | | |
| 0-15. | | |

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| | | |
|---|---|---|
| 5-20. | | |
| 20. | | |
| ange | | |
| ean±SD | ±5.744 | |

**KAP of patients:**

The knowledge, attitude and practice of the studied participants were presented at table. 2. The majority of subjects 70% and 66% had no knowledge regarding the normal BP reading and the symptoms of low BP, respectively. About half of them gave incorrect answers regarding (50%) alcohol intake and the risk of high BP development. Also, 51% gave incorrect answers regarding the symptoms of high pressure and 56% gave incorrect answers about overweight as a risk factor of hypertension. On the other hand, 60% of patients had correct answers about the complications of uncontrolled BP.75 % gave correct answers about excessive salt intake as a risk factor for developing BP. More than half of them (57%) correctly knew that they have to take antihypertensive medications for longevity. Also, 65% has good knowledge about the importance of regular BP measurement.

As for the attitude of the subjects, most of the subjects had positive attitude regarding reducing the salt intake, exercising regularly, regular medication intake and regular visits to physicians. The practice was also good among the majority about regular administration of medications, regular follow up with the doctors, avoiding extra salt in diet and following a healthy diet. Although only 37% are practicing physical exercises daily.

**Table (2): KAP of studied participants.**

| | **t** | | **correct** | |
|---|---|---|---|---|
| | | | | |
| **edge** | | | | |
| Do you know the normal BP reading? | | | 0 | |
| Do you know what the high BP is? | | | 2 | |
| Do you know what complications can arise if BP is not controlled? | | | | |
| Is excessive salt intake one of the risk factors for developing high BP? | | | | |
| Is excessive alcohol intake one of the risk factors | | | 0 | |

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| | | | | |
|---|---|---|---|---|
| for developing high BP? | | | | |
| Is being overweight one of the risk factors for developing high BP? | | | 2 | |
| Do you know about the symptoms of high BP? | | | 2 | |
| Do you know about the symptoms of low BP? | | | 2 | |
| Do you have to take antihypertensive medicines for life long? | | | | |
| Is regular BP measurement necessary for high BP patients? | | | | |
| **e** | | | | |
| Should we reduce salt intake to prevent hypertension? | | | | |
| Do you think regular checking of BP is important? | | | | |
| Should we keep in touch with the physician regularly? | | | | |
| Do you think regular medication is important in hypertension? | | | | |
| Should we exercise regularly for healthy life? | | | | |
| **e** | | | | |
| Are you taking regular prescribed medicine? | | | | |
| Do you go for follow up regularly? | | | | |
| Are you avoiding extra added salt in your daily diet? | | | | |
| Are you doing any physical exercise daily? | | | 6 | |
| Do you follow a healthy diet? (fat restricted, getables and fruit rich) | | | | |

**KAP score:**

The knowledge score was weak among 50.5% of subjects, average among 36.5% and high among 13% of subjects. The attitude of the subjects was high among 66.5% and the practice score was average to high among 46% and 31.5%(Table. 3, Fig.1).

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**Table (3): KAP score:**

| | | | ge | | | ±SD |
|---|---|---|---|---|---|---|
| ledge | | | | | | .753 |
| de | | | | | | 0.856 |
| ce | | | | | | .899 |

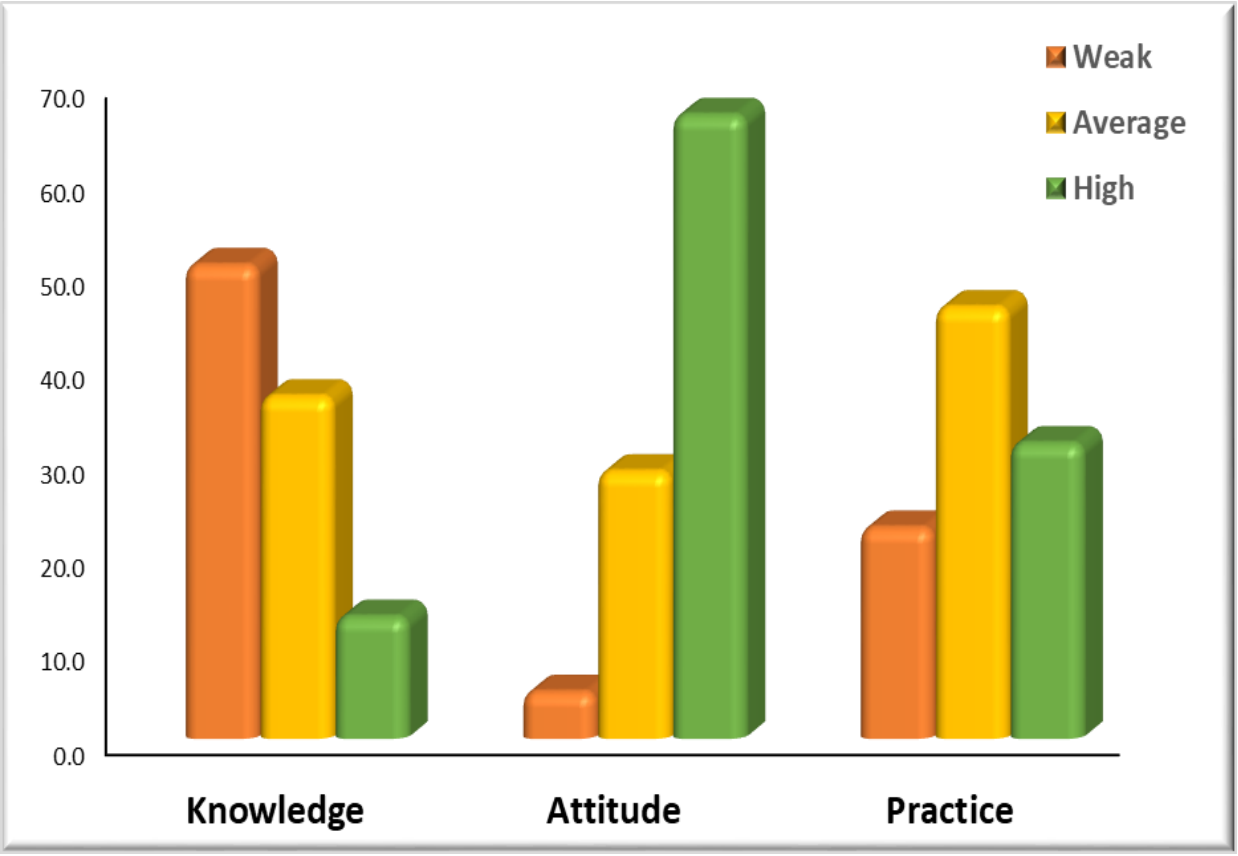


**Fig. 1: KAP score**

**The relation between the demographics with the attitude of included subjects:**

As offered in table 4, the higher KAP was significantly related with older age, female gender, higher educational levels and longer disease duration.

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Table (4): Relation between different studied basic demographic data and KAP.

| graphic data | | | ledge | ue | de | ue | ice | ue |
|---|---|---|---|---|---|---|---|---|
| | | | | 1* | | * | | * |
| | le | | | 1* | | * | | * |
| of education | ry<br>ediate<br>ndary<br>education | | | 1* | | * | | * |
| ion of tension | | | | 1* | | * | | * |

## Discussion

In developing nations, hypertension is regarded as a serious health issue. In the United States, incidence rates range from 4% among young adults to 60% in the 65-74 year old age group[15]. The bulk of the respondents in our survey were under the age of 70, which was comparable to other studies[16]. This demonstrated that HTN was not merely a disease that afflicted the elderly, but that it was also frequent among adults of all ages. As a result, interventions such as a healthy diet and lifestyle behaviors should be implemented to reduce the disease's frequency[17, 18].

The level of knowledge was poor among half of the respondents while the attitude and practice pattern were better among most of the subjects. As the majority of patients had good KAP regarding reducing the salt and its effect on hypertension, regular use of hypertensive drugs, and regular follow up with their physicians. On the same respect, numerous studies have looked at this topic and shown that for hypertensive individuals using antihypertensive drugs, salt restriction gives extra benefits in terms of blood pressure control[19, 20].

A research studying the population's salt moderation was also outstanding as the majority of patients practiced salt limitation.50 % of the patients had a habit of eating nutritious foods in their diet[14].Adherence to medications was reported to be significant and the majority of the patients used antihypertensive medications on a regular basis[14, 21].

Nevertheless, medication non-adherence has been reported to be greater in men due to the side effect of impotence generated by various antihypertensive medications[21].

The better KAP was significantly associated with female gender, older age, higher educational levels, and longer duration of illness. Accordingly, patients with duration

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ofhypertension five years and above had better KAPcompared to those with less duration of hypertension[14, 21].

Age was discovered to be a predictor of hypertension awareness. When compared to older participants, younger persons had a lower degree of expertise[22]. This contradicted another study's showing that approximately 29 percent of respondents over the age of 65 had less awareness of hypertension, compared to 18 percent of those aged 45–65 and 22 percent of those younger than 45 [23].

Also, higher educational levels were associated with better KAP and better management of hypertension[24]. The present study was limited to clinic patients and only took place in one location. Given that the characteristics associated to hypertension examined in this study may differ demographically in different parts of KSA, thus generalizations of the findings without a multicenter investigation or a meta-analysis study from two or more locations may be difficult.

**Conclusion:**

HTN is a serious illness that causes plenty of comorbidities and, finally, mortality. In the treatment of HTN, preventive management is very important. A major development of knowledge, attitude, and practice- enhancing initiatives to lower the burden of HTN in a nation necessitates an assessment of KAP toward HTN. Our research revealed that most people have a good understanding of the problems of HTN and the significance of sticking to a strict follow-up schedule. the majority of the patients had good attitude and practice. Future research should assess patients' attitudes regarding drug adherence.

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**Conflict of interest:** no conflict of interest.

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