PREVALENCE OF HYPERTENSION AMONG YOUNG ADULTS IN KARACHI CITY.

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Abstract

Hypertension is regarded one of the global problem but it prevalence in the under developing countries is high and to least say alarming. Hypertension is responsible for the major cause of cardiovascular disease. Studies report that hypertension is multi factorial disease and its prevalence varies with various countries and geographical regions. Hence in this study we tried to find the prevalence of hypertension in Karachi, Pakistan. We conducted our study on 130 participants from Karachi through a simple savory method. Our result confirmed that 18% of the participants were hypertensive patients. We also found that 94% were those who belong to low income group and among them 17% were hypertensive patients. Our results also shown that 31% were those who never checked their blood pressure and 8% with hypertension were cardiac patients. This shows that along with family history. Low income and unhealthy life style are major factors for high prevalence in the inhabitants of Karachi. We also concluded that means should be improved to enhance knowledge and awareness of people of Karachi about hypertension.

Introduction:
Hypertension is counted one of the global problems and the major cause of heart disease. Several studies reported that prevalence of hypertension varies with countries and geographic region (Kearney et al., 2005). Prevalence of hypertension increased with age being highest among 60 years and above. Socioeconomic factors, life style, physical activates and family history are the factors that are responsible for the high prevalence of hypertension in adults (Kennel, 1996). The rate of awareness towards the control of hypertension is quite prominent in western countries and in America while the situation in south Asian region is more threatening. Only 8% control rate in china and 6% of management rate of hypertension is reported in India (Erem et al., 2009). Currently it is reported that about 1 billion people have hypertension worldwide and this number expected to increase to 1.56 billion by 2025 (Sarafidis et al., 2008). In Pakistan the prevalence of hypertension is 18% of adults and 35% in adult of age 45 years as estimated by national health survey of Pakistan (Fahad et al., 2010). The aim of this study was to assess the prevalence of hypertension and to examine the risk factors associated with hypertension in adults of Karachi particularly ranging from 21- 40 years of age. The particular age is selected for its exposure to various factors.

Methods:
A retrospective survey method was used for obtaining the result. A questionnaire was written in a simple and understandable manner and asked to the participants to fill it. The participants were selected randomly and the
purpose of this study was clearly mentioned to them, furthermore their consent was taken before handing them the questionnaires. Total of 130 individuals participated in this study and all were male adults from Karachi locality.

**Results:**
Among the participants that took part in this study majority were between the age of 36-40 as shown in the figure 1. 18% of the participants were found to be hypertensive patients among those 17% were low income group earning 10,000-30,000 pkr per month showing that hypertension is more prevalent in this group in contrast with group earning 50,000–above the prevalence of hypertension was 0.8% only. This is shown in figure 2. Family history of the participants was also investigated and it was founded that hypertension was more common in individuals with parental hypertensive, diabetic or cardiac history (Figure 3). When the data for cardiac history, heavy junk food and limit of physical activities was analyzed, there was clear link between the Hypertension and these factors as show in the figure 4. In this study level of awareness regarding measuring blood pressure was also estimated. We found that 68% of participants measure their Blood pressure on regular basis. When participants were asked about hypertension therapy, only 11% were taking Acard as anti hypertensive drug while the other 89% were those without any drug therapy or treatment. This is alarming situation and need education and proper attention to raise awareness among the public (Figure 5).

![Fig 1: Distribution of patients according to age](image1)

![Fig 2: Significant number of hypertensive patients lies in the lower middle class category.](image2)

![Fig 3: This figure shows the distribution according to familial history.](image3)
Fig 4: Results suggested that patients with unhealthy lifestyle are prone to hypertension.

Fig 5: Classification of participants according to therapy, significant number of patients is oblivious about taking regular medication.

Discussion:
In this big city of Karachi the prevalence of 18% hypertension is least alarming but not a good sign. Most of the hypertension patients belonged to low income group and high age group. The worse thing was that 89% of hypertensive patients were not using any antihypertensive therapy and this need an immediate attention and is a matter of concern. This study report that along with family history and socioeconomic condition, noise pollution, intake of heavy cholesterol rich junk foods, work and social stress and tension are key contributing factors. We also found that as high as 31% never even to bother to check their blood pressure on regular basis. Hence we concluded that prevalence of hypertension in inhabitants of Karachi is due to mostly low income, unhealthy lifestyle, noise pollution, family and work related stress and lack of physical activities. We concluded here that perception and attitude of people in the city is not good enough and needed to be changed through education, by conducting seminars and awareness workshop.

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