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Research Article

OCCURRENCE AND DEMOGRAPHIC FEATURES PAKISTANI HIGH BLOOD PRESSURE AMONG ADULTS

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Abstract:

Aim: Hypertension is most notable avoidable cause for horribleness and mortality, but generally agent grown-up information on Pakistan have not been available. The research planned for surveying the commonness and determinants of hypertension, including sociodemographic factors, weight status, health behaviour, and psychosocial stress and backing hazard factors.

Methods: The Pakistan Family Life Survey met and inspected in the public populace based cross-sectional investigation 29969 people matured 19 years and more seasoned, mean age 45.4 years (SD=16.4). Our current research was conducted at Mayo Hospital, Lahore from March 2019 to February 2020. Pulse, body tallness also weight, dietary conduct, physical movement, tobacco usage, and psychosocial factors were estimated. Calculated relapse examinations were utilized to assess factors of hypertension by sexual orientation.

Results. The predominance of hypertension among study members was 34.5% (96 % CI: 34.8-36.1), among guys 32.1% (96% CI: 31.3, 32.8), and among females 36.5% (96% CI: 35.8, 37.4). Among hypertensives, 43.8% knew, 12.6% were dealt with, and 16.5% were controlled. In completely balanced investigations, in the two people, more established age, no or rudimentary instruction, being overweight or hefty, and having visited an outpatient's wellbeing office in the previous 5 weeks were decidedly related hypertension. Age (P to pattern $< 0,001$) and weight file (BMI) (P to pattern $< 0,002$) have found huge straight hypertension relations. Similarly, the use of tobacco and the burdensome side effects of men had clear hypertension ties, whereas today's use of tobacco was detrimental to hypertension. Furthermore, hypertension was associated with lower emotional monetary status in women.

Conclusion: The frequency of elevated blood pressure and poor concentration, and extremely low therapy and regulation. Significant multi-level intercessions for general well-being are desperately needed to enhance hypertension diagnosis, care and management in Pakistan.

Keywords: Demographic Features, Pakistani, High Blood Pressure.

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INTRODUCTION:

Endless non-communicable diseases (NCDs) in low-and - middle-salary countries have become a major well-being concern. South-eastern Asia, such as Pakistan, where a small financial initiative is spread to tackle the emerging pestilence in NCD [1] is highly noticeable in the scale of NCD expansions. In Pakistan, the three most common causes of death are stroke (24.3%), coronary ischemic disease (8.9%) and diabetes mellitus (9.6%). Present cigarette smoking (2011) is known to account for major adult NCD danger factors in Pakistan, at 36% (68% in men and 3% in women), elevated blood weight or hypertension (2010) 27,8% (29,1% in men and at 26,5% in ladies) and 4,8% (2009) [2]. Hypertension was shown to contribute to an unhealthy way of living, the lack of physical exercise and the consumption of alcohol, cigarette smoke and nicotine. In high and low-and-center countries, growing trends in the incidence of hypertension have been found. Anything close to the world trend, hypertension with an increasing pattern is "the most inferable source of mortality in South-East Asia." Hussain et al.[3] found 47.8% of people with hypertension in 40 years and older in the 2007 Pakistan Family Life Survey (IFLS-4). Hypertension is an avoidable condition, but recent trials have shown that anti-hypertensive drugs are not very effective. 37 percent were examined or attentively and 25 percent were treated with assisted antihypertensive medication in Pakistan in the 2007 IFLS4 survey (40 to 65 years). 45.8percent understood their hypertension status and 34.1 percent received antihypertensive care in the newly reported survey of the general population of China (18 years old and more seasoned); 34percent understood and 26.9percent were treated in Iran (25-66 years of age), and 48.4per cent knew and 28.6percent received treatment in Vietnam [26 years] [4]. 47.6% understood their hypertension diagnosis and 34.6% were served in a network focused on participants (36 to 73 years) from 17 predominantly Low Center Income Nations. These assessments indicate that hypertension diagnosis and care need to be improved dramatically [5].

METHODOLOGY:

Information was broken down in the "Pakistan Family Life Survey (IFLS-5)," which began in 1993 with four rounds of information, and was completed in 2018 with the fifth round (IFLS-5). The people group level utilizing a multistage separated examining. Our current research was conducted at Mayo Hospital, Lahore from March 2019 to February 2020. The testing casing of the first study in quite a while in light of family units from 327 specification zones (EAs) (20 family units were haphazardly chosen from each urban EA, and 35 family units were chosen from each country EA) in 14 out of 29 Pakistan areas that were chosen speaking to 84% of the Pakistan populace in 1993; additional subtleties are accessible. At family unit level, a few haphazardly chosen family unit individuals were approached to give nitty gritty individual information. Blood pressure was arranged utilizing JNC 7 calculation. "Hypertension was characterized as systolic BP ≥ 140 mmHg or potentially DBP ≥ 96 mm Hg or potentially current utilization of antihypertensive medicine. Normotension was characterized as BP values $< 120/80$ mm Hg in people who were not taking antihypertensive prescription". Sociodemographic factors were evaluated with inquiries on age, sexual orientation, training, private status, abstract financial foundation, and nation region. We likewise analyzed direct affiliations by presentation classifications in each model (p for pattern) in the appraisal of hypertension pervasiveness. "Cross-area examination loads were applied to address both for test wearing down from 1993 to 2014, and afterward to address for the truth that the IFLS1 test configuration included over-inspecting in urban zones and off Java. The cross-area loads are coordinated to the 2018 Pakistan populace, again in the 13 IFLS areas, so as to make the weakening balanced IFLS test illustrative of the 2016 Pakistan populace in those provinces". Both the 96% certainty spans what's more, P esteems were balanced considering the overview structure of the investigation. All examinations were led with STATA programming adaptation 14.1.

Table 1:

Table I Sample characteristics

Variables	Variable specification	Total	Men	Women	P-value
Sample	N (%)	2,543	1,003 (40.7)	1,540 (59.3)	
Mean age in years (SD)	Range 18–64, mean (SD)	38.7 (12.8)	39.9 (13.3)	38.0 (12.4)	<0.001
SBP	mmHg, mean (SD)	119.5 (19.1)	121.7 (18.3)	118.0 (19.4)	0.004
DBP	mmHg, mean (SD)	77.0 (12.5)	76.3 (12.0)	77.5 (12.8)	0.003
Hypertension	%	20.0	18.5	21.1	0.168
Of hypertensives	Aware, %	29.4	25.0	32.0	<0.001
Of hypertensives	Treated, %	18.2	13.8	20.8	<0.001
Of hypertensives	Controlled, %	16.7	17.3	16.4	0.822
Education	None/less than primary, %	41.8	30.5	49.7	<0.001
	Primary, %	27.3	29.7	25.7	
	Secondary or more, %	30.8	39.8	24.6	
Marital status	Never married, %	10.5	11.7	9.8	0.002
	Married or cohabiting, %	86.2	86.8	85.8	
	Separated/divorced/widowed, %	3.3	1.5	4.5	
Employment status	Employed, %	41.6	44.8	39.8	0.078
	Not employed, %	58.4	55.7	60.2	
Ethno-linguistic group	Lao-Tai, %	73.0	70.7	74.7	0.088
	Other, %	27.0	29.3	25.3	
Residence	Rural, %	67.7	67.5	67.8	0.906
	Urban, %	32.3	32.5	32.2	
Body weight status and health behavior					
Body mass index	Normal, %	47.5	53.4	43.5	<0.001
	Underweight, %	9.7	8.6	10.4	
	Overweight, %	17.5	16.6	18.1	
	Obese, %	25.3	21.4	28.0	
Central obesity	Waist circumference (≥ 90 cm in men and ≥ 80 cm in women), %	28.7	13.0	39.4	<0.001
Fruit and vegetable consumption	<5 servings/day, %	86.9	86.9	86.9	0.976
Had meals prepared outside home	Once or more/week, %	28.8	32.1	26.5	0.011
Vegetable oil	Used for meals, %	67.6	66.1	68.7	0.245
Physical activity	Low, %	13.0	6.4	17.5	<0.001
	Moderate, %	21.8	14.5	26.8	
	High, %	65.2	79.1	55.7	
Sitting	High (≥ 7.5 hours/day), %	3.8	2.5	4.7	0.030
Tobacco use	Current, %	33.8	56.3	18.5	<0.001
Alcohol use	Problem use, %	3.6	5.2	2.5	<0.002
Raised cholesterol (≥ 5.0 mmol/L) or medication	%	22.9	15.1	28.2	<0.001
Raised fasting blood glucose (≥ 6.1 mmol/L) or medication	%	7.3	5.7	8.4	0.019

RESULTS:

Two 9969 people aged 19 and over with maximum hypertension interventions (women: 53.8%; average age 45.4 years, SD: 16.4, age 19-108 years) were given the absolute example from Pakistan. In total, 34.5% of the population have elevated blood pressure, 31.0% of men and 35.4% of ladies. 43.8% of hypertensives realized that hypertension was significantly higher in women (51.2%) than men (34.8%) and urban (44.5%) than in rural areas (45.3%). Of the populace with hypertension, 12.6% were as of now utilizing endorsed antihypertensive drug, and 15.4% had controlled their circulatory strain (<140 mm Hg and diastolic pulse <90 mm Hg). Ladies (15.1%) were more widely used than

men (9.5%) and commercial (14.1%) than landlords (9.9%) for antihypertensive pharmaceutical items that had already been endorsed. Just 14.3 percent of people with hypertension regulated their heartbeat. For men, the systemic blood pressure was 2,2mmHg higher than for women, while for women it was 0,2mmHg higher. In women (42.0%) the prevalence of BMI was higher than in men (23.0%), while in men (67,2%) the actual prevalence of tobacco use was slightly higher than in women (3.0%) (see Table 1). The incidence of high blood pressure is common and between 18 and 29 years and 73 years of age for either sex ($P < 0,001$ pattern). Hypertension is more common among men than among women aged 19 to 28 years, while hypertension is more prevalent in

women than men aged 40 years and over. Moreover, hypertension is typically reduced by guidance from no development to advanced education (p for trend

< 0.002) for both sexes (and more dependent for female). (see Table 2).

Table 2:

Table 2. Prevalence of hypertension by age, sex and socio-economic development in Indonesian men and women, IFLS 2007.

	n	Men, %(SE)					Women, %(SE)					Overall population ^{†a}
		40–49 y	50–59 y	60–69 y	≥ 70 y	Total*	40–49 y	50–59 y	60–69 y	≥ 70 y	Total*	
Place of residence												
Urban	4874	36.7 (1.6)	48.2 (2.0)	63.0 (2.6)	66.4(3.6)	46.2 (1.1)	41.4 (1.5)	56.2 (1.8)	68.4(2.3)	76.7 (2.8)	53.3 (1.0)	49.8(0.7)
Rural	4881	29.6 (1.5)	43.9 (2.0)	50.9 (2.6)	63.4(3.1)	41.0 (1.0)	39.6 (1.5)	51.3 (2.0)	62.2(2.3)	76.0 (2.8)	51.6 (1.0)	46.4(0.7)
Wealth index												
Q1:poorest quintile	2087	27.9 (3.0)	46.2 (4.4)	47.9 (4.6)	62.6(4.8)	39.7 (2.1)	41.5 (3.2)	52.6 (3.6)	61.8(3.7)	75.4 (3.9)	51.2 (1.9)	46.4(1.4)
Q2	1930	30.2 (2.6)	42.8 (3.4)	60.5 (4.1)	61.8(5.0)	41.5 (1.7)	38.9 (2.5)	55.3 (3.1)	66.6(3.5)	77.1 (4.0)	52.5 (1.6)	47.3(1.2)
Q3	1790	32.2 (2.2)	41.0 (2.8)	56.5 (3.7)	66.8(4.9)	41.7 (1.5)	41.1 (2.1)	49.0 (2.8)	65.1(3.5)	77.0 (5.2)	51.7 (1.4)	46.6(1.0)
Q4	1812	31.8 (2.5)	50.8 (3.3)	52.9 (4.5)	66.7(6.2)	44.0 (1.7)	43.2 (2.5)	54.8 (3.1)	66.5(4.1)	72.2 (5.1)	53.7 (1.7)	48.9(1.2)
Q5:least poor quintile	2136	39.1 (2.5)	50.0 (2.9)	59.5 (4.3)	66.9(6.2)	48.1 (1.7)	37.7 (2.2)	57.4 (2.9)	63.0(4.0)	81.8 (4.5)	52.6 (1.5)	50.1(1.1)
Education												
Illiterate	1782	28.4 (4.7)	42.2 (5.1)	61.7 (5.0)	59.9(4.4)	40.6 (2.8)	38.5 (3.2)	49.6 (3.1)	62.9(2.6)	74.5 (2.7)	49.9 (1.7)	46.9(1.5)
Elementary school	4940	31.8 (1.6)	44.3 (2.0)	51.5 (2.5)	67.7(3.2)	41.9 (1.0)	43.5 (1.5)	53.7 (1.8)	67.1(2.5)	78.6 (3.3)	54.3 (1.0)	48.2(0.7)
High School	2351	32.1 (1.9)	48.3 (2.6)	60.2 (3.9)	64.9(6.5)	44.3 (1.4)	35.7 (2.1)	56.5 (3.2)	62.8(4.4)	83.5 (6.7)	51.6 (1.6)	47.1(1.1)
Graduate and above	666	40.5 (3.5)	52.1 (5.0)	64.7 (6.9)	51.8 (16.5)	48.7 (2.8)	35.6 (4.0)	60.4 (6.1)	54.0 (12.4)	1.0	53.2 (3.2)	49.4(2.4)
Overall population ^a	9755	32.7 (1.1)	45.8 (1.4)	55.6 (1.9)	64.4(2.4)	43.1 (0.7)	40.4 (1.1)	53.5 (1.4)	64.5(1.6)	76.3 (2.0)	52.3 (0.7)	47.8(0.5)

* Prevalence standardized for age.

† Prevalence standardized for age and sex.

^a Values for trend by men, $P < 0.0001$; women, $P < 0.0001$; social-economic development, $P = 0.007$; and education, $P = 0.001$.

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DISCUSSION:

The aging widespread among all adults (19 and more seasoned) was 34.5 percent among 2014-15, which is close to the 40-year age commonness in a 2007 survey in Pakistan (47.8 per cent)[6-7] in a first mostly agent dependent Pakistan hypertension testing in the 2009 studies of Myanmar of 31.2 per cent in 16-66- [8]. In this 2013-16 experiment, only

43.8% of people with hypertension knew (45.8% among 40 and more years of experience) and 11.5% (13.8% among 40 and more experienced people) approved antihypertensive treatment [9]. This seems to suggest a rise in care (from 38% in 2007 to 44.9% in 2015-18), but (from 26% in 2009 to 12.6% in 2019-20) the size of the procedure declines [10].

Table 3:

Table 3: Predictors of hypertension by gender

Variables	Men		Women	
	COR (95% CI) ^a	AOR (95% CI) ^b	COR (95% CI) ^a	AOR (95% CI) ^b
Sociodemographics				
Age in years				
18–34	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
35–49	2.63 (1.64, 4.25)***	1.86 (1.07, 3.26)*	2.22 (1.52, 3.24)***	1.70 (1.13, 2.55)
50–64	4.92 (3.03, 7.98)***	3.66 (1.98, 6.76)***	4.07 (2.78, 5.96)***	3.12 (2.04, 4.76)***
Education				
No formal education/less than primary	1 (Reference)	1 (Reference)	1 (Reference)	---
Primary	2.50 (1.46, 4.28)***	2.02 (1.12, 3.64)*	0.90 (0.65, 1.24)	---
Secondary or more	2.37 (1.40, 4.01)***	1.84 (0.95, 3.57)	1.08 (0.77, 1.49)	---
Employed (base = not employed)	1.61 (1.08, 2.41)*	0.95 (0.59, 1.52)	1.04 (0.78, 1.39)	---
Marital status				
Never married	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
Married or cohabiting	2.43 (1.20, 4.91)*	1.22 (0.50, 3.01)	2.14 (1.10, 4.16)*	1.14 (0.56, 2.33)
Separated, divorced, widowed	3.95 (1.07, 14.52)*	2.40 (0.68, 8.81)	4.43 (1.95, 10.07)***	1.84 (0.74, 4.61)
Ethno-linguistic group (Lao-Tai) (base = other)	2.78 (1.79, 4.30)***	1.36 (0.77, 2.40)	1.82 (1.27, 2.62)***	1.18 (0.80, 1.73)
Urban residence (base = rural residence)	2.08 (1.39, 3.12)***	1.36 (0.88, 2.12)	1.52 (1.12, 2.07)**	1.26 (0.90, 1.75)
Body weight status and health behavior				
Body mass index				
Normal	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
Underweight	0.60 (0.18, 1.95)	0.61 (0.18, 2.04)	0.62 (0.32, 1.23)	0.60 (0.29, 1.24)
Overweight	2.53 (1.60, 4.03)***	2.44 (1.48, 4.02)***	1.82 (1.21, 2.74)**	1.38 (0.86, 2.15)
Obese	4.55 (2.73, 7.56)***	2.42 (1.19, 4.92)*	3.82 (2.73, 5.34)***	2.03 (1.27, 3.22)**
Central obesity	4.63 (2.91, 7.36)***	1.63 (0.87, 3.06)	3.66 (2.80, 4.79)***	1.83 (1.25, 2.67)**
Fruit and vegetable consumption (<5 servings)	0.74 (0.44, 1.25)	---	1.22 (0.78, 1.91)	---
Meals prepared outside home (once or more/week)	1.35 (0.90, 2.03)	---	1.11 (0.81, 1.53)	---
Oil or fat used for cooking				
None	1 (Reference)	1 (Reference)	1 (Reference)	1 (Reference)
Vegetable oil	3.18 (1.57, 6.45)***	2.16 (0.99, 4.72)	1.67 (1.01, 2.73)*	1.14 (0.69, 1.88)
Lard or suet, butter or ghee	1.59 (0.72, 3.54)	1.72 (0.76, 3.93)	1.32 (0.74, 2.35)	1.26 (0.70, 2.26)
Physical activity (high) (base = low/moderate)	0.64 (0.46, 0.91)*	1.01 (0.64, 1.58)	0.69 (0.36, 1.31)	---
High sitting time	1.86 (0.76, 4.57)	---	1.32 (0.69, 2.54)	---
Current tobacco use	0.73 (0.51, 1.02)	---	0.73 (0.48, 1.10)	---
Hazardous or harmful alcohol use	1.15 (0.56, 2.39)	---	2.84 (1.22, 6.55)*	3.14 (1.36, 7.24)**
Biochemical				
Raised cholesterol (≥ 5.0 mmol/L) or medication	3.47 (2.24, 5.37)***	1.67 (1.03, 2.76)*	2.16 (1.61, 2.88)***	1.36 (0.97, 1.89)
Raised fasting blood glucose (≥ 6.1 mmol/L) or medication	1.56 (0.78, 3.09)	---	2.69 (1.71, 4.18)***	1.53 (0.92, 2.56)

Notes: ^aAdjusted for age; ^badjusted for all covariates. ***P<0.001, **P<0.01, *P<0.05.

Abbreviations: AOR, adjusted odds ratio; COR, crude odds ratio.

CONCLUSION:

In a delegate study of the whole adult population in Pakistan, the review found a high degree of hypertension. Not exactly 53% of hypertensive medications is considered to be administered and regulated by a minority. Some dangerous causes have been reported that tend to guide intercession services, including counting sociodemographic variables, such as more age-determined, lower teaching, gender status, and lower financial status, body weight status (overweight or corpulent), well-being (physical inertia) and psycho-social tension. Intercession services at many levels are increasingly important to improve experience with hypertension, hypertension entry and network intercessions that are distinct and proven to be effective in the

reduction of high blood pressure. Additional steps, for example salt entry and liquor use, will need to be implemented for future inquiries.

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