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Research Article

**ASSESSMENT OF ADHERENCE TO ANTI-HYPERTENSIVE
TREATMENT AMONG PATIENTS ATTENDING TERTIARY
CARE HOSPITAL**¹Dr.Aqsa Ghias, ¹Dr.Sadaf Ramzan, ²Dr.Tehreem Malik¹Mohi Ud Din Islamic University A.J.K, ²Xinjiang Medical University China.

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Abstract:

chronic non-transmittable illnesses represent a genuine danger to general wellbeing around the world, paying little mind to whether they are created and created and have the right to be treated as a worldwide wellbeing need. Hypertension is the fundamental modifiable hazard factor for cardiovascular sicknesses. The absence of adherence to antihypertensive treatments has been connected to an assortment of issues, including inadequate circulatory strain control, reemergence and more prominent utilization of wellbeing assets.

Technique: this cross-sectional examination was directed from September to October 2018 on all grown-up hypertensive patients at the Nishter Hospital Multan.

Results: out of 150 members in the investigation, 66 (44%) had hypertension 10-15 years and in any event 18 (12%) had hypertension > 5 years, 81 (54%) acquired private segment medications and others from the open area. 30 (20%) took 2 tablets every day, 109 (72.7%) took 1 tablet daily. 90 (60%) had low attachment, 36 (24%) had medium bond and 24 (16%) had high grip for medications utilizing the Morisky attachment scale. When we analyzed the relationship between medication consistence with other socio-statistic qualities, we got measurably noteworthy outcomes as far as financial status, area and spot of procurement of medications ($P = 0.0$).

Conclusion: adherence to the medication was low in this examination. The degree of adherence to treatment among members can be accomplished by teaching patients and bringing issues to light.

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INTRODUCTION:

Hypertension is one of the primary general medical issues in created and creating nations. Hypertension is a noteworthy hazard factor for unexpected passing, stroke and coronary illness around the world. Hypertension is the fundamental modifiable hazard factor for cardiovascular illnesses and was the principle hazard factor for the worldwide sickness load in 2010.¹ Ceaseless non-transmittable ailments represent a genuine danger to general wellbeing around the globe and have the right to be treated as a worldwide wellbeing goal.² 7.1 million individuals overall kick the bucket of hypertension, of which 57 % because of stroke and 43% is because of ischemic heart disease.² The WHO characterizes consistence as "the degree to which an individual carries on by taking drugs, consuming less calories and/or making way of life changes".³ The World Health Organization (WHO) depicts poor consistence as the most significant reason for uncontrolled pulse and gauges that half of individuals don't accept antihypertensive medications as recommended. The most unfortunate individuals have the most astounding danger of contracting perpetual ailments and biting the dust rashly in light of the fact that they are at high hazard. Their entrance to wellbeing administrations is low: "Incessant sicknesses and destitution are connected in an endless loop". The powerlessness to purchase medications is a significant determinant and is altogether connected with poor consistence and weakness results in creating nations. Inability to consent to restorative treatment regimens is a noteworthy worry in the treatment of patients with interminable maladies, for example, hypertension and a noteworthy reason for treatment failure.^{4,5} The reason for these examinations is to research the consistence of the medication in hypertensive patients.

METHODOLOGY:

This cross-sectional investigation will be led from September to October 2018 on grown-up hypertensives by visiting Nishter hospital in Multan.

Sample size: Every single hypertensive patient who visited the Hospital in September and October were inspected.

Sampling Technique: During this period, all consecutive diabetics who visited the hospital were included in the sample.

Method of data collection

The consistence of the medication is estimated by the adherence size of the 8-point tranquilize Morisky (MMAS-8), which comprises of 8, every one of which estimates a particular medication taking conduct. The reaction classifications are yes/no for 7 articles and a 5-point likert reaction for the last component. Socio-statistic attributes are perceived for every single qualified patient, for example, age, sex, history of hypertension term, financial status and level of instruction through a pre-ried semi-organized survey. It additionally brings up issues about the number and recurrence of meds, just as the reactions of the medications experienced by the patient. Information is gathered through direct close to home meeting with seeds. The degree of consistence is controlled by the score coming about because of the entirety of all the right answers: high consistence (8 points), normal consistence (from 6 to <8 focuses) and poor consistence (<6 focuses). In this examination, patients are viewed as disciples in the event that they score 8 in the MMAS-8.

Statistical Analysis: The subsequent information was encoded and embedded into the Microsoft Excel worksheet. This was breaking down with the SPSS form 22. Investigation utilizing expressive insights, for example, the recurrence circulation of the examination members as indicated by age, sex, conjugal status, instructive status, work, kind of business and financial status. To discover the relationship of adherence to the medication with the components referenced over, the chi-square test was connected to each factor. Factual criticalness was surveyed with a noteworthiness level of 5%.

RESULTS:

Socio-demographic Characteristics: Of 150 investigation members, 47 (31.3%) were in the 49-58 age greater part and at any rate 17 (11.3%) had a place with 29-38 years, 96 (64%) were people 54 (36%) were ladies, 41 (27.3%) non-educated, 60 (40%) were graduates and 49 (32.7%) were auxiliary or more, most 49 (32, 7%) were jobless and 6 (4%) worked, The greater part of them 59 (39.3%) were from urban ghettos, 35 (23.3%) were from rustic zones, 56 (37.3%) originated from the urban territory, 56 (37.3%) from the lower classes and 16 (10.7%) from the upper working class (Table 1).

Table 1: Distribution Study Subjects based on Age.

Determinants	Frequency	Percentage (%)
Age		
29-38	17	11.3
39-48	38	25.3
49-58	47	31.3
59-68	28	18.7
69 and >	20	13.3
Gender		
Female	96	64.0
Male	54	36.0
Education		
Non-literate	41	27.3
Primary and High School	60	40.0
Secondary School and above	49	32.7
Occupation		
Unemployed	49	32.7
Unskilled	38	25.3
Semi-skilled		
Skilled	14	9.3
Clerical and shop owners	12	8.0
Semi-professional	19	12.7
Professional	6	4.0
Residence		
Urban	56	37.3
Urban Slum	59	39.3
Rural	35	23.3
Socioeconomic status		
Upper class	32	21.3
Upper Middle class	16	10.7
Lower Middle class	46	30.7
Upper Lower class	56	37.3

Disease Profile: A large portion of them 66 (44%) had hypertension for 10-15 years and in any event 18 (12%) had hypertension for > 5 years (Table 2), 81 (54%) were from the private division and others from

the administration - In mental segment (Table 3), 30 (20%) took 2 tablets for each day, 109 (72.7%) took 1 tablet daily, 5 (3.3%) took 3 tablets per day and 6 (4%) took 4 tablets for each day (Table 4).

Table 2: Distribution Study Subjects based on duration of Hypertension.

Duration of HTN	Frequency	Percent
1-10 yrs	137	91.3
10-20 yrs	11	7.4
>20 yrs	2	1.3
Total	150	100.0

Table 3: Distribution Study Subjects based on Purchase of Medicine.

Medicine Purchased	Frequency	Percent
Government Pharmacy	69	46.0
Private Pharmacy	81	54.0
Total	150	100.0

Table 4: Distribution Study Subjects based on Number of Tablets taken

Number of Tablets taken	Frequency	Percent
1	109	72.7
2	30	20.0
3	5	3.3
4	6	4.0
Total	150	100.0

Adherence to drugs: 90 (60%) had low bond, 36 (24%) had medium grip and 24 (16%) had high attachment for medications utilizing the Morisky bond scale. (Table 5) In examining the connection between medication adherence and other socio-statistic attributes, factually noteworthy outcomes were gotten as far as financial status, spot of remain and spot of procurement of medications (P = 0.0) (Table 6).

Table 5: Distribution Study Subjects based on Adherence Scoring.

Adherence	Frequency	Percent
Low adherence	90	60.0
Medium Adherence	36	24.0
High Adherence	24	16.0
Total	150	100.0

Table 6: Distribution of study subjects based on Association of Adherence with Socio-demographic Characteristics.

Determinants	Low adherence	Medium adherence adherence	High	Total (%)	Chi-square value	p-value
		Age in yrs				
29-38	11	4	2	17(11.3)		
39-48	27	8	3	38(25.3)		
49-58	25	7	11	47(31.3)	5.2	0.7
59-68	16	6	5	28(18.6)		
		Gender				
69 and >	11	21	3	20(13.3)		
		Education				
Male	56	10	19	96(64)	3.0	0.2
Female	34	11	5	54(36)		

Non-literate	24	15	7	41(27.3)		
		Residence				
Primary and High School	40	14	9	60(40)	2.6	0.6
Secondary School and above	26	3	8	49(32.6)		
		Socio-Economic status				
Urban	33	0	9	56(37.3)		
Urban slum	46	0	10	59(39.3)	30.2	0.00
Rural	11	15	5	35(23.3)		
		Duration Of Hypertension				
Upper Class	28	21	4	32(21.3)		
Upper Middle Class	14	34	2	16(10.6)		
Lower Middle Class	25	1	6	46(30.6)	31.4	0.0
Upper Lower Class	23	1	12	56(37.3)		
		Number of tablets taken				
1-10 yrs	84	26	19	137(37.2)		
10-20 yrs	5	9	5	11(7.3)	8.7	0.06
>20 yrs	1	1	0	2(1.3)		
		Medication Purchased				
1	66	33	17	109(72.6)		
2	15	3	6	30(20)		
3	3	3	1	5(3.3)	2.3	0.5
4	6		0	6(4)		
Government Pharmacy	24		12	69(46)	43.9	0.0
Private	66		12	81(54)		

DISCUSSION

Hypertension is a ceaseless ailment that requires deep rooted mediations and pharmacotherapy. Adherence to treatment and its assessment speak to an extraordinary test. Of 150, 90 (60%) had low adherence, 36 (24%) had medium adherence and 24 (16%) had high medication adherence utilizing the Morisky attachment scale. In a medical clinic study led by Hema K et al. In Andhra Pradesh (n = 400), just 15.3% (n = 61) of members discovered high adherence to antihypertensive medications. in a college medical clinic in Karnataka it was discovered that 74% of the members clung to the

antihypertensive drug.⁷ In another network based investigation in Bangladesh by Khanam MA et al. 73.8% of members joined the drug.⁸ A clinical report by Ambaw AD et al. in northwestern Ethiopia (n = 384), 64.6% of the members in the examination clung to their treatment.⁹ In the present examination, there was no relationship with age, sex, instruction, calling, term of the illness, number of tablets assumed and position of procurement of medications with medication consistence. An investigation by Rao BB et al. demonstrated that the rate of adherence to antihypertensive medications was preferred in patients more established over 60 years (67.2%)

measurably huge ($p = 0.02$).¹⁰ Study by Kumar N et al. discovered that adherence was great yet not factually critical in the age bunch ≤ 60 ($p = 0.52$).¹¹ as opposed to the aftereffects of the present examination, Mazzaglia G et al. demonstrated a critical relationship among sex and adherence ($p < 0.001$ OR (95% CI) = 0.72 (0.65-0.81)) In the present investigation, the financial status, area and area of medication buys affected medication consistence ($P = 0.0$). An investigation by Ahmad S et al. appeared in Moradabad Factual importance among SES and adherence in upper-working class members with preferred adherence over the lower white collar class ($p = 0.001$).¹³ In the present investigation, there was a relationship between's the quantity of medications taken and the consistence of the medications. Comparative outcomes were acquired from an investigation by Nagarkar AM et al. where no significance was found among adherence and the quantity of medications taken ($p = 0.631$).¹⁴ Patients who were hypertensive for a long time or more had a three times more noteworthy adherence than the individuals who had under 5 years of hypertension and adjustment to adherence after some time in accordance with the aftereffects of past investigations. The expanded term of hypertension has helped these patients set up the propensity for normally expending their pills.¹⁵

CONCLUSION:

The investigation closes by watching 60% of poor medication consistence and measurably noteworthy outcomes with financial status Since hypertension is a perpetual and dynamic infection, tranquilize consistence must be constantly and totally upgraded.

REFERENCES:

1. Dave NS, Sharma RT, Kulkarni GR, SS. Therapy Compliance in Hypertension: Indian Clinicians Viewpoint. *Int J Drug Dev and Res.* 2017;9:8-11.
2. Subhasis BP, Sankara S, Kavumpurathu R, Thankappan. Assessment of adherence to Anti hypertensive treatment and its determinants among urban slum dwellers in Kolkata, India. *Professor Asia Pac J Public Health.* 2011. DOI: 10.1177/1010539511423568.
3. Sathvik BS, Karibasappa MV, Nagavi BG. Self-reported medication adherence pattern of rural Indian patients with hypertension. *Asian J Pharm Clin Res.* 2013;6(Suppl 1):49-52.
4. Sabaté E. Adherence to long-term therapies: evidence for action. Geneva: World Health Organization. 2003.
5. Blandford L, Dans PE, Ober JD, Wheelock C. Analyzing variations in medication compliance related to individual drug, drug class and prescribing physician. *J Managed Care Pharm.* 1999;5(1):47-5.
6. Hema K, Padmalatha P. Adherence to medication among hypertensive patients attending a tertiary care hospital in Guntur, Andhra Pradesh. *Indian J Basic Applied Med Res.* 2014;4(1):451-6.
7. Kumaraswamy RC, Kauser MM, Jagadeesh MK, Kumar RU, Kumar SRV, Afreen A, et al. Study of determinants of non-adherence to anti-hypertensive medications in essential hypertension at a teaching hospital in Southern India. *Chrimed J Health.* 2015;4(1):57-60.
8. Khanam MA, Lindeboom W, Koehlmoos TLP, Alam DS, Niessen L, Milton AH. Hypertension: adherence to treatment in rural Bangladesh findings from a population-based study. *Glob Health Action.* 2014;7(1):25028.
9. Ambaw AD, Alemie GA, Yohannes SMW, Mengesha ZB. Adherence to anti-hypertensive treatment and associated factors among patients on follow up at university of Gondar Hospital, Northwest Ethiopia. *BMC Public Health.* 2012;12(1):282.
10. Rao BB, Kabra PR, Sreedhar M. Factors associated with adherence to antihypertensive treatment among hypertensive persons in an urban slum area of Hyderabad. *Indian J Basic Applied Med Res.* 2014;4(1):471-7.
11. Kumar N, Unnikrishnan B, Thapar R, Mithra P, Kulkarni V, Holla R, et al. Factors associated with adherence to antihypertensive treatment among patients attending a tertiary care hospital in Mangalore, South India. *Int J Cur Res Rev.* 2014;6(10):77-85.
12. Mazzaglia G, Ambrosioni E, Alacqua M, Filippi A, Sessa E, Immordino V, et al. Adherence to antihypertensive medications and cardiovascular morbidity among newly diagnosed hypertensive Patients. *Circulation.* 2009;120(16):1598-605.
13. Ahmad S. Assessment of adherence to antihypertensive treatment among patients attending a health care facility in North India. *Int J Res Med.* 2015;4(1):117-24.
14. Nagarkar AM, Gadhawe SA, Sharma I, Choure I, Morisky D. Factors influencing medication adherence among hypertensive patients in a tertiary care hospital, Pune, Maharashtra. *National J Comm Med.* 2013;4(4):559-63.
15. Jin J, Sklar GE, OhVMS, Li SC. Factors affecting therapeutic compliance: a review from the patient's perspective. *Ther Clin Risk Manag.* 2008;4(1):269-86.