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EXAMINATION OF HYPERTENSION KNOWLEDGE LEVELS OF HYPERTENSION PATIENTS, TURKEY

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ABSTRACT

Hypertension is a global health problem that causes significant morbidity and mortality. The aim of the study is to determine the hypertension knowledge level of hypertension patients. This descriptive study is carried on with 207 patients who applied to a private medical clinic in Ankara, Turkey between January and March 2022. A semi-structured interview method was employed in the study to collect data. The questionnaire contains two sections. In the first section, the Sociodemographic characteristics form,, and in the second section, Hypertension Knowledge-Level Scale (HK-LS) are used. The data were analyzed with the SPSS 21.0. The age range of the patients participating in the study varies between 18-73 years, and the mean age is 54.3±4.2. Among the participants, 53.1% of them are women, and 70.5% of them are married. The HK-LS average of the participants is found (16.3±3.45). As a result, the hypertension knowledge level of the patients is found to be high in the study. The hypertension knowledge level is higher among the young than the elderly, those who pay regular visits to doctors than those who do not, and university graduates compared to primary school graduates. In order to increase the patients' knowledge level, it is believed that it will be useful to offer training and organize seminars, especially for the elderly, primary school graduates, and those who do not pay regular visits to doctors.

KEYWORDS: Hypertension, Knowledge level, Patient, Disease information, Hypertension treatment, Attitude & behaviour.

INTRODUCTION

Causes of death worldwide and in Turkey show that coronary artery diseases rank first. Among coronary artery diseases, the most common one is hypertension (1-2). Hypertension is described as an arterial blood pressure level of 130/80 mmHg and above according to the guidelines of the American Heart Association, and 140/90 mmHg and above according to the European Society of Cardiology and Turkish Hypertension Consensus Report (3-5).

It is estimated that 9.4 million deaths and 7% of the disease burden worldwide are caused by hypertension. Therefore, hypertension is considered and approached as a global health problem (6). Hypertension might cause coronary heart diseases, heart failure, cerebrovascular disease, renal failure, peripheral vascular diseases, deterioration in retinal vessels, and vision loss (7). In prevalence surveys conducted on a global scale, it was determined that 25 to 35 percent of the adult population has hypertension (8). According to the Turkish Hypertension Prevalence Study PatenT 1 and PatenT 2, which was carried out to investigate the prevalence, awareness, treatment, and control rates of hypertension, the prevalence of hypertension among Turkish adults did not vary significantly between 2003 and 2012. In 2012, the prevalence was found to be 30.3 percent, down from 31.8 percent in the population aged 18 and over in 2003. According to these statistics, one out of every three adults in Turkey over the age of 18 is hypertensive. The prevalence of hypertension rises with age, reaching 50% in the population after the age of 50 and up to 70% in the population after the age of 70 (9). Although hypertension is less prevalent in individuals under the age of 18, it has been estimated that 1 to 3 percent of children in Turkey have high blood pressure, and the frequency of hypertension is growing by up to 5% in tandem with the rising incidence of obesity among adolescents (10).

Hypertension necessitates an effective and holistic approach to combat in terms of mortality and morbidity rates, comorbidities, and treatment costs. Patients, as well as healthcare facilities and personnel, play a significant role in this effort (6,11). Together with hypertension medication, informing and educating the patient about hypertension, i.e., the patient's knowledge, is one of the most critical linkages in managing hypertension (12-13). As patient knowledge

of hypertension increases, rates of hypertension diagnosis, treatment, and management will also rise parallelly. Identifying gaps in hypertension knowledge will aid in eradicating those gaps (14-15).

OBJECTİVES OF STUDY

The aim of the current study is to determine the level of hypertension patient knowledge and also to examine the differences in hypertension knowledge level according to sociodemographic characteristics.

MATERIALS AND METHODS

Sample

This descriptive study was carried out between January and March 2022 on patients admitted to a private medical clinic in Ankara, Turkey. This study's population is composed of all patients (N=263) who presented with a diagnosis of hypertension between the given periods. Without selecting a sample, all patients who fulfill the inclusion criteria were attempted to be contacted. Inclusion criteria to the study can be listed as the participants' being over the age of 18, in good mental health, had been diagnosed with hypertension at least 6 months prior, and being open to communication. Being under the age of 18, not having good mental health, not being able to communicate, having hypertension for less than 6 months and not agreeing to participate in the study were the exclusion criteria of the study. The study is conducted with 207 patients who fulfilled the given criteria and agreed to participate in the study. Seventy-eight percent of the community has been reached.

Data Collection Tools

As a data collection tool, a semi-structured interview method was employed in the study. The questionnaire contains two sections. In the first section, participants are asked nine questions about their sociodemographic characteristics. The second section employs the Hypertension Knowledge-Level Scale (HK-LS).

Hypertension Knowledge-Level Scale (HK-LS): It was developed by Baliz Erkoc et al. to evaluate the hypertension-related knowledge of hypertension patients in 2012. It is composed of 22 items with six sub-dimensions. Sub-dimensions are composed of the definition (2 items), medical treatment (4 items), adherence to drugs (4 items), lifestyle (5 items), diet (2 items), and complications (5 items) (16).

The scale items are formed of whole sentences, and the answers are either true or false (definite statement). Each scale item is classified as true, false, or I don't know options, and each accurate response is worth 1 point. If the scale score is 16 or higher, the hypertension knowledge level is considered to be high. Cronbah Alpha value is 0.82 on the overall scale (16).

Statistical Analysis

The research data is analyzed with the statistical program called SPSS (Version 21, Chicago, IL, USA). Arithmetic average, standard deviation, and frequency analysis are employed in descriptive statistics analysis. The groups were compared using the Independent Samples T-Test, One Way ANOVA, and Pearson Correlation due to the normal data distribution. The $p<0.05$ value is considered to be statistically significant.

Ethics

In order to perform the research, institutional approval is received from the Non-Interventional Research Ethics Board. All patients who volunteered to participate in the trial provided informed consent prior to participation.

RESULTS

The age range of the patients participating in the study varies between 18-73 years, and the age average is 54.3±4.2. Among the participants, 53.1% of them are women, and 70.5% of them are married. Table 1 shows the participants' sociodemographic and clinical characteristics.

Variables	n	%
Age groups (year)		
18-45	82	39.6
≥46	125	60.4
Sex		
Male	97	46.9
Female	110	53.1

Table 1: Sociodemographic Characteristics of the Participants

Marital status		
Married	146	70.5
Single	61	29.5
Income level		
Low	13	6.3
Middle	86	41.5
High	108	52.2
Education level		
Primary school	21	10.1
Secondary school	38	18.3
High school	105	50.7
University	43	20.9
Regular check up		
Yes	81	39.2
No	126	60.8
Working status		
Yes	74	35.7
No	133	64.3
Having another chronic illness		
Yes	140	67.6
No	67	32.3
Diagnosed time (year)		
≤5	44	21.3
≥6	163	78.7

Cont. Table 1: Sociodemographic Characteristics of the Participants

Descriptive statistics and the reliability coefficient for the HK-LS were given in Table 2. The point average of the HK-LS of the participants is found to be at a high level (16.3±3.45). Furthermore, the scale's reliability coefficient is 0.79, and it is deemed reliable.

	Item numbers	**Minimum**	**Maximum**	**Mean**	**SD**	**CA**
HK-LS	22	0	22	16.3	3.45	0.79
(SD: Standard Deviation, CA: Cronbah Alfa)						

Table 2: HK-LS mean Scores of the Patients

The comparison based on the sociodemographic characteristics of the participants demonstrates that there is a statistically considerable difference among the groups based on age, level of education, and frequency of doctor visits ($p<0.05$). Other sociodemographic factors do not considerably differ ($p>0.05$) between the groups (Table 3).

Variables	M±SD.	p
Age groups (year)		
18-45	16.7±4.1	**0.03**
≥46	15.9±3.2	
Education level		
Primary school[1]	15.8±3.4	**0.01**
Secondary school[2]	16.1±4.1	**1-4=0.02**
High school[3]	16.3±3.5	
University[4]	16.9±3.7	
Regular check up		
Yes	17.3±2.9	**<0.001**
No	15.7±4.4	
(M: Mean, SD: Standard Deviation) Independent Samples T Test, One Way ANOVA, Post Hoc Tukey Test		

Table 3: HK-LS mean Scores According to Sociodemographic Characteristics of the Patients

DISCUSSION

Despite significant advances in its treatment recently, hypertension still remains one of the most significant health issues (17). Treatment of hypertension requires a concerted effort involving all stakeholders. Patients are expected to have adequate knowledge since it is vital for them to demonstrate the appropriate attitude and behavior for this conflict.

The average HK-LS scores of the patients in this study reveal that the hypertension knowledge level of the participants is high. In the study of Baliz Erkoc et al. and Yakar et al., it is also determined that the patients' level of knowledge is high (16,18). In specific research, it is found that patients have inadequate knowledge about hypertension (19-21). It is believed that the results of studies vary based on the application to various sample groups and the participants' characteristics.

This study examines the hypertension knowledge levels of patients based on their sociodemographic features. Thus, significant variations are detected across groups based on age, education level, and frequency of doctor visits. The results show that those who are younger and those who regularly pay a visit to doctors are more knowledgeable. According to another result, university graduates have a greater level of knowledge than those who have completed only elementary school. Examining the relevant literature reveals that similar results have been found. The studies of Arikan et al., Dag et al., Anyanti et al., Chimberengwa, and Naidoo show that people with a higher education level have greater hypertension knowledge than those with a lower education level (2,15,22-23).

The studies of Arslantas et al., and Akan et al., reveal that individuals who see doctors regularly have a better level of knowledge (19,24). In the research that examined the reasons why patients do not visit their doctor regularly, it has been found out that forgetting control, feeling good, believing that the sickness is not all that serious, workload, financial challenges, and transportation issues are the most prevalent causes (2,25). In the research conducted by Baliz Erkoc et al. and Gong et al., younger children are found to have a higher level of hypertension knowledge than older children (16,26). It is believed that this may be associated with the better health literacy and education levels of younger individuals, the fact that those who see their doctors regularly receive up-to-date and adequate information from health institutions, and also the propensity of college graduates to seek information.

The limitation of the study is the lack of a multi-center design, therefore, the results should not be extrapolated to the entire community.

CONCLUSION

In conclusion, the current study shows that the hypertension awareness level of patients is high. The hypertension knowledge level is higher among the young than the elderly, those who see doctors regularly than those who do not, and university graduates

compared to primary school graduates. In order to increase the patients' knowledge level, it is believed that it will be beneficial to offer training and organize seminars, especially for the elderly, primary school graduates, and those who do not see doctors regularly.

REFERENCES

1. Turkish Statistical Institute. Olum ve olum nedeni istatistikleri, 2019. Available from: https://data.tuik.gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2019-33710#:~:text=%C3%96l%C3%BCmler%20nedenlerine%20g%C3%B6re%20incelendi%C4%9Finde%2C%202019,ile%20solunum%20sistemi%20hastal%C4%B1klar%C4%B1%20izledi. (Accessed 16 March 2022).
2. Dag I, Kahraman S. Determination of the hypertension patients' profile's in Sanliurfa. ACU Sağlık Bil Derg. 2019; 10(4):683-689.
3. Whelton PK, Carey RM, Aronow WS, et al. Guideline for the prevention, detection, evaluation, and management of high blood pressure in adults: A report of the American College of Cardiology/American Heart Association task force on clinical practice guidelines, high blood pressure clinical practice guideline. Hypertension. 2018;71(6):1269-1324.
4. Williams B, Mancia G, Spiering W, et al. Guidelines for the management of arterial hypertension. The Task Force for the management of arterial hypertension of the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH). European Heart Journal. 2018;39: 3021-3104.
5. Aydogdu S, Guler K, Bayram F, et al. 2019 Turkish Hypertension Consensus Report. Turk Kardiyoli Dernegi Arsivi. 2019; 47(6): 535-546.
6. Efe Arslan D, Kilic Akca N. Adherence to medical therapy of patents with hypertension living in rural area. Bozok Med J. 2020; 10(1): 55-62.
7. Atila D, Kilic Oztürk Y, Barisik V, et al. Behaviors and knowledge of hypertensive patients at a family medicine unit. J Med Palliat Care. 2021; 2(3): 66-70.
8. Mancia G, Fagard R, Narkiewicz K, et al. 2013 ESH/ESC Guidelines for the management of arterial hypertension: Th e task force for the management of arterial hypertension of the European Society of Hypertension (ESH) and of the European Society of Cardiology (ESC). J Hypertens. 2014; 31(7):1281-1357.
9. Turkish Health Ministry. Hipertansiyon klinik protokolu, 2020. Available from: https://shgm.saglik.gov.tr/TR-67119/hipertansiyon-klinik-protokolu-yayinlanmistir.html. (Accessed 12 March 2022).
10. Kural B. Screening for hypertension in well-child follow-up. Cocuk Dergisi. 2019; 19(2): 60-62.
11. De Simone ME, Crowe A. Nonpharmacological approaches in the management of hypertension. J Am Acad Nurse Pract. 2009; 21(4):189-196.
12. Akman C, Aksit E. The clinical features of the hypertension patients who apply to emergency service and investigation of factors affecting frequency of application to the emergency service. CBU-SBED. 2020; 7(2): 219 -224.
13. Chow CK, Teo KK, Rangarajan S, et al. Prevalence, awareness, treatment, and control of hypertension in rural and urban communities in high, middle, and low-income countries. JAMA. 2013; 310(9): 959-968.
14. Viera AJ, Cohen LW, Mitchell CM, et al. High blood pressure knowledge among primary care patients with known hypertension: A North Carolina Family Medicine Research Network (NC-FM-RN) Study. J Am Board Fam Med. 2008; 21: 300-308.
15. Arikan A, Aydin A, Ekerbicer HC. Knowledge level of hypertension diagnosed patients about hypertension and related factors. Sakarya Med J. 2020; 10: 33-37.
16. Baliz Erkoc S, Isikli B, Metintas S, et al. Hypertension knowledge-level scale (HK-LS): A study on development, validity and reliability. Int. J. Environ. Res. Public Health. 2012; 9: 1018-1029.
17. Aydin Z, Ozturk S. Up-to-date approach to the treatment of hypertension. Med Bull Haseki. 2014; 52: 251-255.
18. Yakar B, Azakoglu Karaca A, Onalan E. Assessment of adherence to drug treatment and affecting factors among hypertensive patients. Fam Pract Palliat Care. 2019; 4(3): 89-95.
19. Deniz Akan D, Dedeli Caydam O, Cinar Pakyuz S. Assessment of knowledge level and compliance with drug therapy in patients diagnosed with hypertension. Journal of Anatolia Nursing and Health Sciences. 2020; 23(2): 241-249.
20. Uzun S, Kara B, Yokusoglu M, et al. The assessment of adherence of hypertensive individuals to treatment and lifestyle change recommendations. Anadolu Kardiyol Derg. 2009; 9: 102-109.
21. Bovet P, Burnier M, Madeleine G, et al. Monitoring one-year compliance to antihypertension

medication in the seychelles. Bulletin of the World Health Organization. 2002; 80(1): 33-39.

22. Anyanti J, Akuiyibo SM, Fajemisin O, et al. Assessment of the level of knowledge, awareness and management of hypertension and diabetes among adults in Imo and Kaduna states, Nigeria: a cross-sectional study. BMJ Open. 2021;11(3):e043951.
23. Chimberengwa PT, Naidoo M, Cooperative inquiry group. Knowledge, attitudes and practices related to hypertension among residents of a disadvantaged rural community in southern Zimbabwe. PLoS One. 2019;14(6):e0215500.
24. Ergun Arslantas E, Sevinc N, Cetinkaya F, et al. Attitudes and practices of hypertensive patients on hypertension. Ege Journal of Medicine. 2019; 58(4): 319-329.
25. Ozbayram A. Adherence to the medical treatment of the patients taken hypertension diagnosis for the first time and the factors affect it. Marmara University, Master Thesis, Istanbul: Saglik Bilimleri Enstitusu; 2008.
26. Gong D, Yuan H, Zhang Y, et al. Hypertension-related knowledge, attitudes, and behaviors among community-dwellers at risk for high blood pressure in Shanghai, China. Int J Environ Res Public Health. 2020; 17(10): 3683.

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