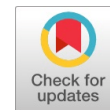


Assessment of Knowledge About High Blood Pressure Among Syrians

Ritta Noura, Ayat Abboud



Abstract: Hypertension, often referred to the silent killer, is a prevalent health issue that impacts more than a billion individuals worldwide. The purpose of this study was to investigate the understanding of hypertension among Syrian individuals. 104 individuals filled out surveys. Females made up 64.4% of the group that was surveyed. 28.8% of the participants in the study were between the ages of 46 and 60. More than half of the participants had a study or a work related to the medicinal field. The participants showed good medication adherence where the score of accurate responses to the questions regarding medication compliance was very high. Most participants were familiar with the normal values of blood pressure levels and were optimistic about the possibility of treating the condition. A good percentage of individuals surveyed stated that smoking and obesity are contributing factors to developing high blood pressure. Most participants believed that consuming fatty foods raises plasma cholesterol levels. Participants had a good overall understanding of high blood pressure. However, they still need improvement in medical information about high blood pressure to enhance compliance with treatments

Keywords: Diclofenac, Syria, usage, practice, survey.

I. INTRODUCTION

High blood pressure (hypertension) is one of the main risk factors for deaths resulting from cardiovascular diseases such as heart failure and infarctions [1]-[10]. According to the World Health Organization (WHO), 1.28 billion adults aged 30–79 have high blood pressure worldwide. Two-thirds of them live in low—and middle-income countries. High blood pressure is a common disease that has no symptoms. To treat high blood pressure, accurate diagnosis is the first step [11]-[20]. High blood pressure can lead to serious complications. Therefore, it needs to be treated [21]-[30]. In adults with hypertension, control of blood pressure with antihypertensive medications reduces the risk of cardiovascular diseases and thereby mortality [31]-[35].

Antihypertensive drugs can not alone control high blood pressure [36-45]. After the diagnosis of hypertension, lifestyle changes should be performed to reduce high blood pressure and its complications [46]-[55]. The knowledge about high blood pressure is important to limit its complications. This study aimed to assess the knowledge about high blood pressure among Syrians.

II. METHODS

A survey was distributed on social media from January to March 2024 to evaluate the Syrians' knowledge about high blood pressure. Various questions were included in the study to collect participants' demographic characteristics and evaluate medication compliance outcomes and the participants' knowledge about high blood pressure.

III. RESULTS

A. Demographic Data of Participants

104 responses were included in this research. The participants' demographic characteristics are presented in Table I. The questionnaire included various age groups. The highest percentage of participants was between 18 and 25 years old, at 31.7% (33), followed by the age group from 46 to 60 years old, at 28.8% (30). 35.6% (37) males and 64.4% (67) females participated in this study.

The educational background of most participants was a bachelor's degree 59.6% (62). The study or the profession of half of the participants was related to the medical field 52.9% (55). More than half of the participants (57.7%) had a family member whose profession is related to healthcare.

B. Medication Compliance

Table II presents the participants' answers regarding the medication compliance questions. 71.2% of the participants feel comfortable on medication. 85% take medication of the participants' choice.

Medications make 94.2% of the participants more relaxed. 83.7% only take medications when they are sick. 94.2% thought that prescribing medication adherence prevents being sick. 97.8% reported that the therapeutic benefits of the drug outweigh its disadvantages.

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*Correspondence Author(s)

Ritta Noura, Department of Pharmacy, Tishreen University, Latakia, Syria. Email ID: r8974180@gmail.com, ORCID ID: [0009-0005-4979-3798](https://orcid.org/0009-0005-4979-3798)

Prof. Ayat Abboud*, Department of Medicinal Chemistry, Tishreen University, Latakia, Syria. Email ID: ayatabboud@tishreen.edu.sy, ORCID ID: [0000-0001-8387-3875](https://orcid.org/0000-0001-8387-3875)

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Table- I: Demographic Characteristics of Participants in the Survey

Demographic Characteristics		Total Number of Participants (104)	%
1. Age	18-25 years	33	31.7%
	26-35 years	11	10.6%
	36-45 years	13	12.5%
	46-60 years	30	28.8%
	>60 years old	17	16.3%
2. Sex	Male	37	35.6%
	Female	67	64.4%
3. educational level	Preparatory	10	9.6%
	Secondary	18	17.3%
	University	62	59.6%
	Master-doctorate	14	13.5%
4. Does your study or work relate to the medical field?	Yes	49	47.1%
	No	55	52.9%
5. have you A family member whose profession is related to healthcare?	Yes	44	42.3%
	No	60	57.7%

C. Level of Participants Consumption Awareness, and Practices

Table III presents the assessment of the knowledge about hypertension among participants. 91.3% (94) of the participants knew normal blood pressure values, while 2% (3) did not. 6.7% (7) of patients do not have enough information about this problem. The risk of having high blood pressure increases with age. 90.4% (94) of the participants confirmed that this condition can rise with age, and 6.7% (7) completely denied this information. 63.5% (66) of the participants agreed that hypertension can be treated, while 28.8% (30) disagreed. 92.3% (95) of the participants thought that smoking is a risk factor for having high blood pressure, while 5.8% (6) did not. High cholesterol level is a risk factor for developing hypertension. 94.2% (98) of the participants agreed that fatty food increases the level of plasma cholesterol, while 2% (2) disagreed. Another risk factor for developing high blood pressure is obesity. The majority of survey respondents 92.3% (96) agreed that obesity increases the risk of high blood pressure, while 2.9% (3) do not agree. 93.3% (97) of the participants knew that regular physical activity reduces the risk of high blood pressure, while 4.8% (5) did not. 87.5% (91) of the participants are aware of the importance of diet in controlling high blood pressure, while 4.8% (5) are unaware of the importance of the diet. 94.2% (98) of the participants believe that hypertension increases the risk of life-threatening diseases. The same percentage of the participants (78.8%-82) believe that medications alone cannot control high blood pressure, while 13.5% (14) thought that medications are sufficient.

Table-II: Results of Medication Compliance of Participants in the Survey

Percentage	Total Number of Participants (104)	Options	Medication Compliance
6. Do you feel comfortable on medication?	Yes	74	71.2%
	No	18	17.3%
	I'm not sure	12	11.5%
7. Do you take medications of your choice?	Yes	13	12.5%
	No	89	85.6%
	I'm not sure	2	1.9%
8. Does medication make you more relaxed?	Yes	98	94.2%
	No	2	2%
	I'm not sure	4	3.8%
9. Do you take medications only when you are sick?	Yes	17	16.3%
	No	87	83.7%
	I'm not sure	0	0%
10. would prescribing medication adherence prevent being sick?	Yes	97	94.2%
	No	1	1%
	I'm not sure	5	4.8%
11. Do the therapeutic benefits of the drug outweigh its disadvantages?	Yes	83	79.8%
	No	6	5.8%
	I'm not sure	15	14.4%

Table-III: Assessing the Knowledge About Hypertension Among Participants (Participants Can Select More Than Responses for Some Questions)

Questions	Options	Total Number of Participants (104)	Percentage
12. Do you know the normal values for blood pressure?	Yes	94	91.3%
	No	3	2%
	I'm not sure	7	6.7%
13. Can high blood pressure rise with age?	Yes	94	91.3%
	No	7	6.7%
	I'm not sure	3	2%
14. Can high blood pressure be treated?	Yes	66	63.5%
	No	30	28.8%
	I'm not sure	8	7.7%
15. Is smoking a risk factor for having high blood pressure?	Yes	95	92.3%
	No	6	5.8%
	I'm not sure	2	1.9%
16. Does eating fatty foods affect blood cholesterol levels?	Yes	98	94.2%
	No	2	2%
	I'm not sure	4	3.8%
17. Does being overweight increase the risk of high blood pressure?	Yes	96	92.3%
	No	5	4.8%
	I'm not sure	3	2.9%
18. Does regular physical activity reduce the risk of developing high blood pressure?	Yes	97	93.3%
	No	5	4.8%
	I'm not sure	2	1.9%
19. Can diets control blood pressure?	Yes	91	87.5%
	No	5	4.8%
	I'm not sure	8	7.7%
20. Can hypertension increase the risk of life-threatening diseases?	Yes	98	94.2%
	No	1	1%
	I'm not sure	5	4.8%
21. Can medications alone control blood pressure?	Yes	14	13.5%
	No	82	78.8%
	I'm not sure	8	7.7%



IV. DISCUSSION

Medication compliance was first evaluated among the participants in the survey. The findings demonstrated good medication compliance among the participants, as shown in Figure 1. The score of accurate responses to the questions regarding medication compliance was very high. For instance, 94.2% of the participants thought that prescribing medication adherence prevents being sick.

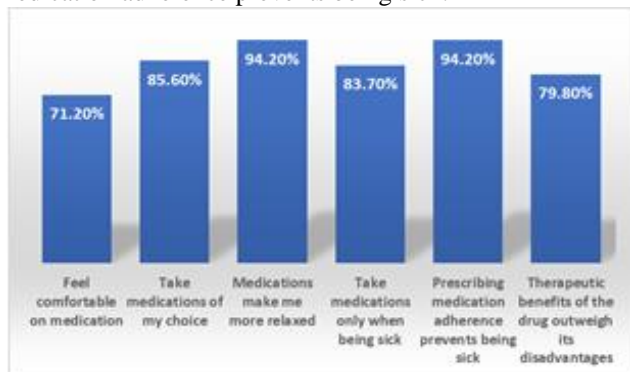


Figure 1: Results of Responses to Questions Regarding Medication Compliance

High blood pressure is a leading cause of mortality worldwide. The normal blood pressure values are usually 120/80 mmHg. The results demonstrated that most participants knew the normal blood pressure values. Blood pressure is highly age-dependent. 90.4% of the participants reported that blood pressure can rise with age. Treating hypertension results in significant reductions in the risk of subsequent cardiovascular disease. More than two-thirds thought that hypertension could be treated. Various lifestyle factors have been considered as a risk for having hypertension. The relationship between smoking and hypertension risk has been extensively studied. The majority of the participants thought that smoking increases the risk of having hypertension. Another risk factor for developing hypertension is high cholesterol levels. The majority of the participants reported that high cholesterol levels increase the risk of having hypertension. Obesity is a significant public health problem worldwide. Obesity is extremely associated with cardiovascular diseases. The association between obesity and high blood pressure is well-confirmed in different studies. The majority of the participants thought that obesity could be a risk factor for hypertension. Exercise is an important lifestyle factor that can help control blood pressure [25]. The majority reported that sports could reduce the risk of hypertension. Several studies investigated the role of dietary and nutritional approaches in preventing and controlling hypertension [26]. Some nutrients can potentially reduce high blood pressure. The participants knew the importance of diet in controlling high blood pressure. Medications help to control high blood pressure. However healthy lifestyle changes play an important role in managing and treating high blood pressure. Fortunately, three-quarters of the participants believe that medications alone are insufficient for having normal blood pressure. Hypertension is a serious medical condition and can increase the risk of heart, brain, kidney, and other diseases. Most participants thought that hypertension could lead to serious life-threatening diseases.

V. CONCLUSION

The findings of this survey revealed a good level of knowledge about high blood pressure. The knowledge about high blood pressure was overall good among the participants. However, they still need improvement in medical information about high blood pressure to enhance treatment compliance.

DECLARATION STATEMENT

After aggregating input from all authors, I must verify the accuracy of the following information as the article's author.

- **Conflicts of Interest/ Competing Interests:** Based on my understanding, this article has no conflicts of interest.
- **Funding Support:** This article has not been sponsored or funded by any organization or agency. The independence of this research is a crucial factor in affirming its impartiality, as it has been conducted without any external sway.
- **Ethical Approval and Consent to Participate:** The data provided in this article is exempt from the requirement for ethical approval or participant consent.
- **Data Access Statement and Material Availability:** The adequate resources of this article are publicly accessible.
- **Authors Contributions:** The authorship of this article is contributed equally to all participating individuals.

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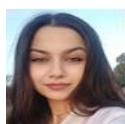
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AUTHORS PROFILE



Ritta Noura, Undergraduate Student, Fifth year in pharmaceutical chemistry and quality control department at faculty of Pharmacy, Tishreen University, Latakia, Syria. Pharmacy student at Tishreen University and registration date at the university during 2019 and 2024. ICDL certificate in 2024. Highlights: Board theoretical experience in analytical methods, synthesis of organic compounds, pharmaceutical preparations, medicinal chemistry principles, TLC methods, high liquid performance methods, Gc methods, UV/visible spectrophotometer principles, electrochemical techniques, IR and NMR specters, extraction methods, gel electrophoresis methods, capillary electrophoresis methods, quality control of solid dosage forms, quality control of liquid dosage forms, quality control of semi-solid dosage forms, GMP, GLP, sampling, Food chemistry.



Prof. Ayat Abbood, Professor in pharmaceutical chemistry and quality control department, Tishreen University - Ph.D. in pharmacy in the field of drug control (2006- 2010, university Paris-11, France) - Master 2 Research: Research and Analytical Development (2005-2006, university Paris-11, France) - Professional Master 1: Quality Control of Medicines and Other Health Products (2004-2005, university Paris-11, France) - Bachelor's degree in Pharmacy and Medicinal Chemistry (1996-2000, Tishreen University, Latakia) Head of Medicinal Chemistry and Quality Control -Faculty of Pharmacy -Tishreen University (2021 until now) - - Head of Pharmacy Department - College of Pharmacy and Health Sciences - Al-Manara University (3 years) - Dean of Pharmacy Faculty –Al-Jazeera University (one year).