Global Scientific JOURNALS

GSJ: Volume 7, Issue 12, December 2019, Online: ISSN 2320-9186
www.globalscientificjournal.com

Assessment of Dietary Habit for Hypertensive Patient at Al - Sadr Medical City

Mohammed A. Mustafa M.Sc. mohammeda.aljanabi@uokufa.edu.iq

Sura ibrahim. bashar.rasheed@uokufa.edu.iq

Ali Abbas Rahi B.Sc.N. alia.almurshedi@uokufa.edu.iq

Hiba Mohammed B.Sc.N husainmansour27@gmail.com

M.Sc. ***Adults Nursing***, Faculty of Nursing, University of Kufa**.**

Abstract:

Objectives: are to assess the dietary habit for patient with Hypertension, to find out association between the dietary habit for Hypertensive patient and their selected demographic Characteristics of age, gender, level of education, duration of hypertension, economic state, and residency, and to find out association between the dietary habit for Hypertensive patient and their selected clinical Characteristics of disease duration, diabetic mellitus, high level of cholesterol, heart diseases, and other diseases.

Methodology: A descriptive cross-sectional design study was conducted in Al-Najaf City in Iraq at Al-Sadder Medical City. the Al-Sadr Medical city. Start form November 2, 2014 to April 2, 2015. In orders to Assess the dietary habit within hypertensive Patient at Al-Sadr medical city. A non-probability (Convenience) sample of (100) of patient those who are coming to outpatient clinic Al-Sadder Medical city for hypertension checkup.The data were collected through the utilization of the semi-structured questionnaire. Questionnaire format was modified for greater ease of understanding and clarity by using the English version of the questionnaire for all those subject who were included in the study sample, and it is consist three parts, Part 1 consisted of (10) items, Part 2 comprised of (5) items, and part 3 consist of (7) items.

Results: The results revealed that more of the study samples (56%) have good dietary habit and (44%) have bad habit at cut- off point (0.66). There was non-significant relationship between the overall assessment and all the demographic data at p-value more than 0.05, except with the study subjects (Occupation, level of education, and monthly income), also the study results indicate that there is a significant relationship at p-value less than 0.05. There was non-significant relationship between the overall assessment and all the clinical data at p-value more than 0.05, except with the study subjects (Duration of hypertension, Restricted to take medication time on time), the study results indicate that there is a significant relationship at p-value less than 0.05

Conclusion: The majority of hypertensive patient is female and house wife according to study sample, with age group (51-60) years old, the most of the study sample no able to read and write (46%), Most the study sample have family history and no smoker or alcohol intake, Most of the study sample not have any chronic diseases like (diabetic mellitus, high cholesterol level, and heart disease),Most of hypertensive patient have good dietary habit. The study confirm that non-significant association between the dietary habit and their demographic data except (Occupation, level of education, and monthly income) the study results indicate that there is a significant, also the study show non-significant association between the dietary habit and their clinical data except (Duration of hypertension, Restricted to take medication time on time), the study results indicate that there is a significant.

Recommendation: The study recommends that the Health education and counseling programmers for both patients and the public should be developed in order to increase awareness regarding causes, consequences, prevention and control of hypertension. Health policy should focus on measures to control blood pressure through life style modification and community health education. Fruit and ve

etables consumption should be encouraged and promoted, while salt and fat consumption shuld be discouraged**.**

Key wards: Dietary habit, Hypertensive patient

© GSJ

Introduction

Hypertension occurs when there is excessive pressure against the blood vessel walls. The heart has to work harder to pump the blood through the body when it is working against this elevated pressure and this can eventually lead to an enlarge end heart and kidney damage. Several epidemiological studies have reported that hypertension is common worldwide and is now regarded as a major public health problem in many countries. (1).

Recently investigations have shown that over 26.4% of the world adult population had hypertension and that by 2025 the global prevalence of hypertension would rise to 29.2 %. Hypertension and its complication including stroke, heart failure and renal failure have been reported in both developed and developing countries. Have shown that excessive weight gain, salt intake, Smoking of cigarettes and drinking of alcohol are the major pre disposing factors for hypertension. (2)

It is evident that diet modifications such as reduction in energy, salt, alcohol, increase in fruits and vegetables intake prevent Hypertension (3).

The benefit of micronutrients found in diet rich in dairy Products, fruit, and vegetables (such as potatoes, avocados, Bananas, oranges) on blood pressure has been established by several studies. (4).

For instance, evidences have established an Association between low dietary intake of calcium and High blood pressure in humans. Most fruits and vegetables are rich in nutrients, low in calories and high in fiber.

They can lower the blood pressure and improve other Risk factors of cardio vascular disease , similarly , diets Low in saturated fat, trans fat and cholesterol decrease The risk of cardiovascular disease by decreasing low Density lipoprotein (LDL) cholesterol. There is positive linear relationship between saturated Fat LDL. And cardiovascular disease risk (5).

A high salt diet may contribute to hypertension in Cases of highly susceptible individuals. sodium sensitivity Is present in subjects with or without hypertension and May be associated with blood pressure changes that Occur with age . in case of hyper tension individuals that Is stimulation of the sympathetic nervous system which Increase the level of insulin. Increased plasma insulin Levels may cause hypertension through retention of Sodium overeating can cause insulin mediated sympathetic Stimulation (6).

There is an interaction between gene and environmental Factors and salt intake in eliciting rapid increase in blood Pressure. Whereas potassium intake was negatively related to blood pressure.

© GSJ

Methodology:

Design of the study:

A descriptive cross-sectional design was conducted on the Al-Sadr Medical city. Start form November 2, 2014 to April 2, 2015. In orders to Assess the dietary habit within hypertensive Patient in Al-Najaf City in Iraq at Al-Sadder Medical City.

The Sample of the Study:

A non-probability (Convenience) sample of (100) of patient those who are coming to outpatient clinic Al-Sadder Medical city for hypertension checkup.

The Study Instrument:

A questionnaire was designed &constructed by researchers to assess the dietary habit within hypertensive Patient at Al—Sadr medical city.

The data were gather by the researcher though the application of the interview technique.

Results, obtained from exploratory study were considered as a baseline data in building the questionnaire in addition to review of related literatures and research study. The questionnaire was constructed and composed of three parts (appendix A). The final study instrument consisting of three parts:

Part 1: socio-demographic:

A socio-demographic sheet, consisted of (10) items, which included:

Gender, age, marital status, level of education, occupation, family history, income, smoking, alcohol, residential area

Part II: Clinical data (hypertension and co-morbidity):

The second part of the questionnaire was comprised of (5) items, which included: diagnosed of hypertensive by medical professional, duration of hypertension, diagnosed of other disease (*diabetic mellitus, high cholesterol level and heart disease*), oral antihypertensive, and restricted take medication.

Part III: Dietary habit for hypertensive patient.

Part three of questionnaire was consisting of (7) items about types of food which include: fat diet, fruits, vegetables, salty food, rice pickle, add salt to cooked food, add fat to cooked food.

Data collection:

The data were collected through the utilization of the semi –structured questionnaire. Questionnaire format was modified for greater ease of understanding and clarity by using the English version of the questionnaire for all those subject who were included in the study sample. The questionnaire used in this study consisted of the following parts:

Part I: Socio-demographic data.

Part II: Clinical data.

Part III: Dietary habit for hypertensive patient.

© GSJ

Data analysis:

The data of the present study were analyzed through the use of statistical package of social sciences (SPSS) version 16.(descriptive and inferential) data analysis approaches were used in order to analyze and assess the result of the study.

Results:

Table (1): Distribution of the observed frequencies, percent's, and cumulative percent's of Demographical data

demographic data	Rating	Frequency	Percent	Cumulative Percent
age	<= 20.00	1	1	**1**
	21.00 - 30.00	1	1	**2**
	31.00 - 40.00	8	8	**10**
	41.00 - 50.00	17	17	**27**
	51.00 - 60.00	27	27	**54**
	61.00 - 70.00	38	38	**92**
	71.00 - 80.00	4	4	**96**
	81.00+	4	4	**100**

gender	Male	36	36	**36**
	Female	64	64	**100**
occupation	Government employer	11	11	**11**
	Farmer	3	3	**14**
	Private sector	3	3	**17**
	Housewife	50	50	**67**
	Other	33	33	**100**
level of education Cont.	No able to read and write	46	46	**46**
	Read and write	9	9	**55**
	Primary	20	20	**75**
	Secondary	10	10	**85**
	College	15	15	**100**

family history of hypertension	Father	13	13	**13**
	Mother	29	29	**42**
	Sibling	31	31	**73**
	Children	4	4	**77**
	Non	16	16	**93**
	Don't know	7	7	**100**
income	Sufficient	28	28	**28**
	Sufficient to some extent	39	39	**67**
	Nonsufficient	33	33	**100**
smoking	Yes	6	6	**6**
	No	94	94	**100**
marital status	Single	2	2	**2**
	Married	96	96	**98**
	Divorce	2	2	**100**
alcohol intake	Yes	2	2	**2**
	No	98	98	**100**
residency	Urban	80	80	**80**
	Rural	20	20	**100**

The highest percentage (27%) between (51-60) years old and lowest percentage (1%) between (20-30) years old this finding is constant with findings of many studies which were done by Rosenthal and Oparil (2000); Kornitzer et.al; (2001); Debra (2010), Studies have shown that there is a positive relationship between age and hypertension. majority of

the study sample (64%) are Female and the remaining are male, this result agree with the finding of many studies which were done by Rosenthal and Oparil (2000); Kornitzer et.al, (2001), they found the majority of the study sample are Female. This result confirms the women are at higher risk than men after menopause. Also shows that house wife are more the study sample and accounted for (5o%), and with regard to level of education more study sample are no able to read and write (46%), The above table also illustrates that more of the study sample (31%) have sibling family history. This table demonstrates that most of the sample (39%) with sufficient to some extent income, and show the most study sample that non-smoker and accounted for (94%). Majority of the study sample (96%) are married, and with regard alcohol intake more the study sample no alcohol intakes, and also show the most of the study sample from urban and accounted for (80%).

Table (2): Distribution of the observed frequencies, percent's, and cumulative percent's of clinical Characteristics

clinical data	rating	Frequency	Percent	Cumulative Percent
duration of hypertension	<= 1.00	12	12	**12**
	2.00 - 10.00	66	66	**78**
	11.00 - 19.00	9	9	**87**
	20.00 - 28.00	6	6	**93**
	29.00+	7	7	**100**
diabetic mellitus	Yes	36	36	**36**
	No	64	64	**100**
high cholesterol level	Yes	26	26	**26**
	No	74	74	**100**
heart disease	Yes	43	43	**43**
	No	57	57	**100**
Other diseases	Yes	49	49	**49**
	No	51	51	**100**
Oral antihypertension drugs	Yes	97	97	**97**
	No	3	3	**100**
Restricted to take medication on time	Yes	76	76	**76**
	No	24	24	**100**

The highest percentage (66%) between (2-10) years of duration of hypertension, Also shows that more the study sample not have any (**diabetic mellitus, high cholesterol level or heart disease**) and accounted for (64%), (74%), (51%),this is constant with

finding of many studies done by Whelton (2004); Thailand health profile (2007), they shown that there is no association between **(high cholesterol level or heart disease**) and hypertension, and with regard to oral antihypertensive drugs more study sample are take oral antihypertension drugs (97%), The above table also illustrates that more of the study sample (76%) are restricted to take medication on time.

Table (3): Summary Statistics for hypertensive patient's dietary habit at Al-Najaf Teaching Hospital and initial Assessment according to Cutoff point for the Studied Questionnaire's Main Domains

	Assessment	Frequency	Percent	Cumulative Percent
dietary habit assessment	**Pass**	56	56	56
	Fail	44	44	100
	Total	100	100	

The above table also illustrates that more of the study sample (56%) have good dietary habit and (44%) have bad habit at cut- off point (0.66).

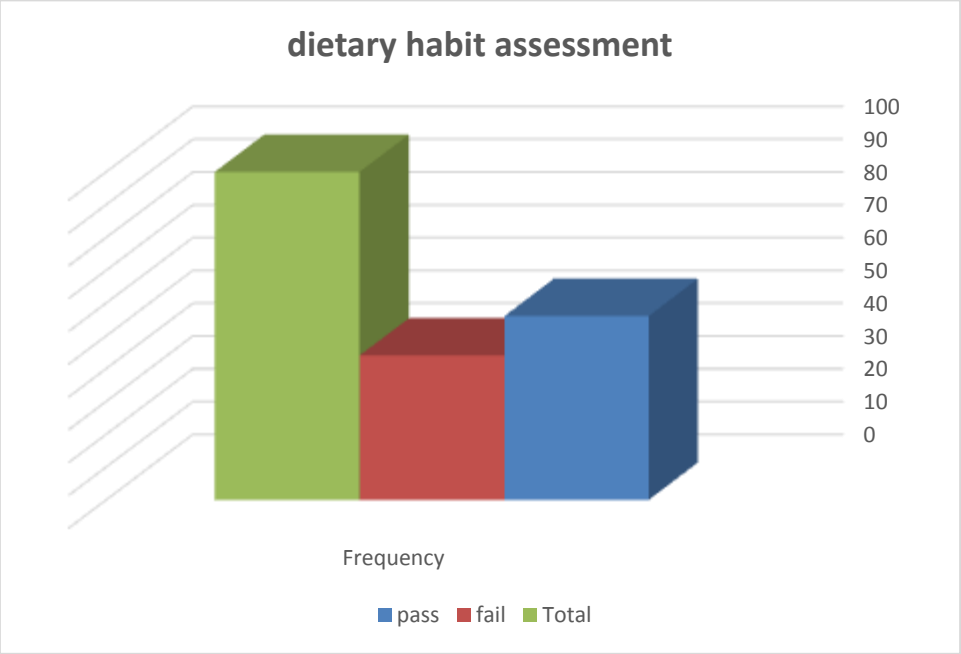

Table (4): Association between The Distributions of demographic data and an overall Assessments due to Compact Form for Main Domains

demographic data	sig. Value	df	p-value
Age	3.814a	4	**0.432**
Gender	.822a	1	**0.365**
Occupation	12.849a	4	**0.012**
Level of education	16.345a	5	**0.006**
Family history of hypertension	15.406a	8	**0.052**
Income	11.280a	2	**0.004**
Smoking	.295a	1	**0.587**
Marital status	2.090a	3	**0.554**
Alcohol intake	1.603a	1	**0.205**
Residency	.162a	1	0.687

This table shows that there is a non-significant relationship between the overall assessment and all the demographic data at p-value more than 0.05, except with the study subjects (**Occupation, level of education, and monthly income**), the study results indicate that there is a significant relationship at p-value less than 0.05.this result agree with Nicolas et.al, (2013), they found in there study "assessment relationships between dietary habits and hypertension: validation with biomarkers" and their finding indicate that there significant association between **level of education** and dietary habits for hypertensive patient.

© GSJ

Table (5): Association between The Distributions of clinical data and overall Assessments due to Compact Form for Main Domains

Clinical data	sig. Value	df	p-value
Duration of hypertension	9.539[a]	4	0.049
Diabetic mellitus	1.867[a]	1	0.172
High level cholesterol	.036[a]	1	0.849
Heart diseases	.439[a]	1	0.508
Others diseases	2.742[a]	1	0.098
Oral antihypertension drugs	.679[a]	1	0.41
Restricted to take medication time on time	4.094[a]	1	0.043

This table shows that there is a non-significant relationship between the overall assessment and all the clinical data at p-value more than 0.05, except with the study subjects (**Duration of hypertension, Restricted to take medication time on time**), the study results indicate that there is a significant relationship at p-value less than 0.05.this result also corresponds to study conducted by Camoes et.al, (2010) "Role of Physical Activity and Diet in incidence of Hypertension: a Population-based Study in Portuguese Adults" they found significant association between dietary habit and duration of hypertension.

© GSJ

Conclusions:

1. The majority of hypertensive patient are female and house wife according to study sample.
2. With age group (51-60) years old.
3. The most of the study sample no able to read and write (46%),
4. Most the study sample have family history and no smoker or alcohol intake.
5. Most of the study sample not have any chronic diseases like (diabetic mellitus, high cholesterol level, and heart disease).
6. Most of hypertensive patient have good dietary habit.
7. The study confirm that non-significant association between the dietary habit and their demographic data except (Occupation, level of education, and monthly income) the study results indicate that there is a significant, also the study show non-significant association between the dietary habit and their clinical data except (Duration of hypertension, Restricted to take medication time on time), the study results indicate that there is a significant.

Recommendations: Based on the present study the researcher recommended the following:

1. Wolf-Maier, K., Cooper, R. S., Banegas, J. R., Giampaoli, S., Hense, H. W., Joffres, M., ... & Stegmayr, B. (2003). Hypertension prevalence and blood pressure levels in 6 European countries, Canada, and the United States. *Jama*, *289*(18), 2363-2369.
2. KOTCHEN, T. A., LUKE, R. G., OTT, C. E., GALLA, J. H., & WHITESCARVER, S. (1983). Effect of chloride on renin and blood pressure responses to sodium chloride. Annals of internal medicine, 98(5_Part_2), 817-822.
3. Rocco, M., Benz, R., Burkart, J., Cheung, A., Heyka, R., Irving, S., & Wright, C. (1997, September). Baseline blood pressure in HEMO study participants: An interim report. In Journal of the American Society of Nephrology (Vol. 8, Pp. A1153-A1153). 1725 I ST, NW STE 510, WASHINGTON, DC 20006 USA: AMER SOC NEPHROLOGY.
4. Bosworth, C., Paganini, E. P., Cosentino, F., & Heyka, R. J. (1991). Long-term experience with continuous renal replacement therapy in intensive-care unit acute renal failure. In Continuous Hemofiltration (Vol. 93, pp. 13-16). Karger Publishers.
5. Health education and counseling programmers for both patients and the public should be developed in order to increase awareness regarding causes, consequences, prevention and control of hypertension.
6. Health policy should focus on measures to control blood pressure through life style modification and community health education.
7. Fruit and vegetables consumption should be encouraged and promoted, while salt and fat consumption should be discouraged.

© GSJ

References:

1. Camoes M, Oliveira A, Pereira M, Severo M, Lopes C. Role of Physical Activity and Diet in incidence of Hypertension: a Population-based Study in Portuguese Adults. Eur J Clin Nutr. 2010; Vol.64, No12: p1449.
2. Debra Wood RN. Risk Factors for Hypertension. 2010; (Online). Available from: http://www.mbmc.org?healthgate?GetHgContent.aspx?token=9c315661-
3. Hypertension Control: Report of a WHO expert committee. Geneva World Health Organization, 2008.WHO technical report series 862.
4. Kornitzer M, Dramaix M, Backer GD. Epidemiology of risk factors for hypertension, implication for prevention and therapy. Drugs. 2001; Vol. 57, No 5: p712.
5. Nicolas S, Alaa A, Adelin A, Michele G. Use of food frequency questionnaire to assess Relationships between dietary habits and hypertension in NESCAV study: Validation with biomarkers. Nutrition journal, 2013; Vol 12: p 8.
6. Rosenthal T, Oparil S. hypertension in Women. Journal of hypertension 2000: Vol 14, p704.
7. Thailand Health Profile 2005-2007 Bangkok Ministry of Public Health, 2007.
8. Whelton pk. Epidemiology of hypertension. Lancet 2004; Vol 101, p344.
9. Mandal GK. Physical Activity, Dietary Habits, and Blood Pressure among Hypertensive Patients in Phutthamonthon district, Nakornpathom Province, Thailand. Journal of human Hypertension.2009; Vol 20, pp 20-22.
10. Smeltzer c. Suzanne; Bare G. Brenda; Hinkle L. Janice; Cheever H. Kerry: Brunner and Suddarth's Textbook of Medical Surgical Nursing, 11th edition, Philadelphia: Lippincott Williams & Wilkins Hunt, USA, 2008; p 601

© GSJ