Self-Care Management of Pregnancy Induced Hypertension for Pregnant Women Attending Primary Health Care Centers at Kirkuk City.

تدابير العناية الذاتية لارتفاع ضغط الدم الناجم عن الحمل للنساء الحوامل المراجعات لمراكز الرعاية الصحية الاولية في مدينة كركوك

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الخلاصة

الهدف: تقييم تدابير العناية الذاتية لارتفاع ضغط الدم الناجم عن الحمل للنساء الحوامل المراجعات لمراكز الرعاية الصحية الأولية في مدينة كركوك . و لمعرفة العلاقة بين تدابير العناية الذاتية التي يسببها ارتفاع ضغط الدم وبعض المتغيرات الديموغرافية مثل (العمر ومستوى التعليم والحالة الاقتصادية الاجتماعية وكتلة الجسم).

المنهجية: دراسة وصفية غير الاحتمالية (غرضية)، اجريت على 100 إمرأة حامل تم اختيارهم من خمسة مراكز للرعاية الصحية الأولية النموذجية في مدينة كركوك. وقد أجريت الدراسة (من 27 كانون الثاني - 31 تشرين الاول 2015) يتكون الاستبيان من أربع محاور رئيسية تشمل: الخصائص الديموغرافية الاجتماعية مثل (العمر ومستوى التعليم والحالة الاقتصادية الاجتماعية وكتلة الجسم) ، والتاريخ الطبي للنساء الحوامل والأسرة، والتاريخ الإنجابي، تدابير العناية الذاتية للنساء الحوامل . وتم إجراء تحليل البيانات من خلال تطبيق الإحصاء الوصفي والاستدلالي.

النتائج : من خلال تحليل البيانات تبين ان (26٪) من النساء ضمن الفئة العمرية (30-34) سنة ،(46٪) خريجي المدارس الابتدائية , (83٪) لديهن حالة اقتصادية اجتماعية واطئة وكانت (56٪) من الحوامل يعانين من السمنة المفرطة . أظهرت نتائج الدراسة أنه لا توجد علاقة ذات دلالة احصائية بين تدابير العناية للنساء الحوامل مع الخصائص الديموغرافية الاجتماعية وكتلة الجسم .

الاستنتاج: استنتجت الدراسة الى أن مستوى تدابير الامهات الحوامل حول العناية الذاتية تجاه ارتفاع ضغط الدم كانت " متوسطة "

التوصيات: أوصت الدراسة إلى زيادة وعي النساء الحوامل تجاه مضاعفات الحمل وخاصة تلك التي يسببها ارتفاع ضغط الدم اثناء الحمل من خلال البرامج التعليمية , ينصح إجراء المزيد من الدراسات للبحث عن زيادة الوعي تجاه التدابير للعناية الذاتية تجاه ارتفاع ضغط الدم في الحمل وتأثيره على صحة الأم والجنين.

Abstract:-

Objective (s) : Assessing self-care management of pregnancy induced hypertension for pregnant women attending primary health care centers at Kirkuk city. And to finding out relationship between self-care management of pregnancy induced hypertension and some socio demographic such as(age , educational level , socio economic status , body mass index).

Methodology : A descriptive study non-probability (purposive) conducted on 100 pregnant women were selected from five typical primary health care centers The study was conducted (from 27 Jan to 31 October 2015). The questionnaire consisted of four main parts including :Socio demographic characteristic such as(age , educational level , socio economic status , body mass index) , medical history of pregnant women and the family, reproductive history, self-care management for pregnant women. The analysis of data was performed through the application of descriptive and inferential statistics.

Results: The findings of the study indicated that (26%) were in the age group(30-34) years and (46%) were primary school graduates, and (83%) were from low level of socio economic status , was 56% of pregnant women suffer from obesity. The study finding showed that there is no significant association between self-care management for pregnant women with socio demographic characteristics and body mass index (BMI)

Conclusions: The study concludes that the level of pregnant women about self-care management toward pregnancy induced hypertension was **" Moderate "**

Recommendations: The study recommended to increased awareness of pregnant women about pregnancy complications especially pregnancy induced hypertension through educational programs. Further studies are recommended to research about increasing awareness to self-care management toward pregnancy induced hypertension and its effect on maternal and fetal health.

Keywords: Self-care, Pregnancy induced hypertension, Pregnant women, Primary health care

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INTRODUCTION

Hypertensive disorders of pregnancy (HDP) are among the main public health issues worldwide [(1)].Hypertensive pregnancy disorders represent the most significant complications of pregnancy and contribute significantly to maternal and perinatal morbidity and mortality [(2,3)].Pregnancy Induced Hypertension (PIH) is a condition specific to pregnancy where there is development of hypertension at or after 20 weeks gestation, pregnancy induced hypertension is diagnosed when after resting the woman's blood pressure rises above 140/90mmHg on at least two occasions no more than one week apart, in woman known to be normotensive [(4)]. It is estimated that globally 6-8% of pregnancies are complicated by hypertension regarding population and the diagnostic criteria[(5)]. Hypertensive disorders account for 10-15% of all maternal death in developing as well as some developed countries, namely18% in United States. Furthermore they are known as the second commonest cause of perinatal mortality in industrialized countries[(6)].In the united states, gestational hypertension complicates roughly 2–3% of pregnancies and preeclampsia complicates approximately 3% of pregnancies [(7)] .In the United Kingdom, hypertension in pregnancy is the most frequent cited cause of death [(8)].

World Health Organization estimates that at least one woman dies every seven minutes from complications of hypertensive disorders of pregnancy [(9)] .The complications of uncontrolled high blood pressure during pregnancy affect multiple organ systems and can be detrimental to both mother and fetus [(10)] .Studies show that pregnant women have lack of an adequate knowledge about preeclampsia [(11)]. This knowledge could potentially prevent pregnancy complications and prevent maternal deaths [(12)].

OBJECTIVES OF THE STUDY:

1. Assessing self-care management of pregnancy induced hypertension for pregnant women attending primary health care centers (Management related to intake of food pattern , Physical care management).
2. Finding out relationship between self-care management of pregnancy induced hypertension and some socio demographic such as (Age, Educational level, Socio-Economic Status , Body Mass index).

METHODOLOGY:

A descriptive study design was accomplished on non-probability sample (purposive) consisting 100 pregnant women selected from five typical primary health care centers. The study was conducted (from 27 Jan to 31 October 2015). The questionnaire consisted of four main parts including :Socio demographic characteristics, medical history of pregnant women and the family, reproductive history, self-care management for pregnant women. Reliability of the questionnaire was determined through an application of cronbach's Alpha correlation coefficients (r= 0.77%). The analysis of data was performed through the

application of descriptive and inferential statistic. Data are analyzed through the use of SPSS(statistical process for social sciences) and Excel (statistical package) through the application of descriptive statistical ((Frequencies, Percent's, and Cumulative Percent's), arithmetic mean, and standard deviation. Inferential statistical (Alpha cronbach's) All question rated according to the following criteria: to three levels of likert scale as, (3) Never,(2) Sometimes (1) Always. Which calculated by the following formula:- Cut-off point= 1+2+3/3 = 6 /3 =2 Assessment of self-care management for pregnant women regarding pregnancy induced hypertension as "adequate" or "inadequate".

RESULTS:

Table 1: Distribution of Socio-Demographical Characteristics variables:

SDCv.	Groups	No.	%	C.S. (*) [P-value]
Age Groups (Years)	20 - 24	21	21	χ^2= 5.700 P=0.223 (NS)
	25 - 29	15	15	
	30 - 34	26	26	
	35 - 39	24	24	
	40 - 44	14	14	
	Mean ± SD	31.54 ± 6.66		
Educational level – wife	Illiterate	7	7	χ^2= 90.680 P=0.000 (HS)
	Read and write	13	13	
	Primary school	46	46	
	Intermediate	17	17	
	Secondary	6	6	
	Institute graduate	4	4	
	College graduate	7	7	

(*) HS: Highly Sig. at P<0.01; NS: Non Sig. at P>0.05; Testing based on One-Sample Chi-Square and Binomial tests

Table(1) Shows that no significant(26%) at age group (30 – 34) years with mean and standard deviation 31.34 yr, and 6.66 years and (46%) were highly significant had low educational levels.

Table (2): Descriptive Statistics of Socio-Economic Status among the Studied Sample with Significant Comparison

Factor	Groups	No.	Cum. Percent	Cum. Percent	C.S. (*) [P value]
Socioeconomic Status	Low : 89- & less	83	83	83	P=0.000 HS
	Mod : 90 - 120	17	17	100	
	High :121 - 150	0	0	100	
	Total	100	100		

(*) HS: Highly Sig. at P<0.01; **Testing method are based on Binomial test**

Table (2) shows distribution of the "Socio-Economic Status", with significant comparison. The vast majority of studied sample are from Low socio economic status and they are accounted (83%), as well as highly significant differences are illustrated among this distribution at P<0.01.

Table (3): Distribution of Body Mass Index for Studied Sample with Comparison Significant

Factor	Groups	No.	Percent	Cum. Percent	C.S. (*) [P-value]
BMI $\frac{\text{weight}}{(\text{Height (m)})^2}$	Normal weight	10	10	10	$\chi 2$= 31.760 P=0.000 (HS)
	Overweight	34	34	44	
	Obese	56	56	100	
	Mean ± SD	30.8 ± 4.8			

(*) **HS: Highly Sig. at P<0.01**; **Testing method is based on Chi-Square test**.

Table (3) shows observed frequencies, percent s and Cumulative percent s of BMI parameter, with comparison significant. Vast majority of the study sample are within obese weight group, and accounted (56%), mean and standard deviation is 30.8 ± 4.8.

Table(4): Assessment of Pregnant Women for Self-Care Management Regarding Food Pattern.

NO	Management related to intake of food pattern	Resp.	No.	%	MS	SD	RS%	A.D.
1. *	Avoid adding salt to food	Never	4	4	2.38	0.56	79.30	M
		Sometimes	54	54				
		Always	42	42				
2. *	Take fast food	Never	35	35	1.73	0.60	57.70	M
		Sometimes	57	57				
		Always	8	8				
3. *	Take pickles and spices	Never	24	24	1.94	0.65	64.70	M
		Sometimes	58	58				
		Always	18	18				
4. *	Take food which is rich with fat	Never	16	16	2.00	0.57	66.70	M
		Sometimes	68	68				
		Always	16	16				
5. *	Take food which is rich with protein	Never	17	17	2.05	0.63	68.30	M
		Sometimes	61	61				
		Always	22	22				
6.	Take less sugar and starch	Never	14	14	2.21	0.67	73.70	M
		Sometimes	51	51				
		Always	35	35				
7. *	Take red meat	Never	36	36	1.78	0.68	59.30	M
		Sometimes	50	50				
		Always	14	14				
8.	Take white meat(fish and chicken)	Never	1	1	2.82	0.41	94.00	H
		Sometimes	16	16				
		Always	83	83				
9.	Take nuts and raisins	Never	21	21	1.97	0.63	65.70	M
		Sometimes	61	61				
		Always	18	18				
10.	Take fresh vegetable and fruit	Never	1	1	2.83	0.40	94.30	H
		Sometimes	15	15				
		Always	84	84				
11. *	Drink a lot of soft drink	Never	35	35	1.79	0.67	59.70	M
		Sometimes	51	51				
		Always	14	14				
12. *	Drink a lot of tea and coffee	Never	59	59	1.53	0.70	51.00	H
		Sometimes	29	29				

		Always	12	12				
	Drink a lot of water (eight cups per	Never	0	0				
13.	day)	Sometimes	25	25	2.75	0.44	91.70	H
		Always	75	75				
	Drink all kinds of juice	Never	2	2				
14.		Sometimes	25	25	2.71	0.50	90.30	H
		Always	73	73				
	Committee to diet as prescribed to	Never	8	8				
15.	me by a physician	Sometimes	56	56	2.28	0.60	76.00	M
		Always	36	36				

(A.D.): Assessment Degree, and with Scoring Scales: [(33.3 - 55.5); (55.6 - 77.7); (77.8 – 100)] Low, Moderate, and High Respectively .Red Color Items Reversed Measuring Scale, and that Revere an Assessments Score.

Table (4) shows summarize subjects responses concerning with management related to intake of food pattern among studied women. The results show in light of scoring assessment, that "Moderate, and High", degrees are formed 10(66.7%), 5(33.3%) respectively, while no one among the studied items are formed low assessment.

Table(5): Assessment of Pregnant Women for Self-Care Management Regarding Physical Care Management.

No	Physical care management	Resp.	No.	%	MS	SD	RS%	A.D.
1.	Practice exercise regularly such	Never	42	42				
	as walking	Sometimes	43	43	1.73	0.71	57.70	M
		Always	15	15				
2.	Take a period of relaxation	Never	17	17				
	(lying down, sitting) when I	Sometimes	47	47	2.19	0.71	73.00	M
	feel tired	Always	36	36				
3.	Lift the leg to the top a little	Never	37	37				
	when lie down or sitting after	Sometimes	36	36	1.90	0.80	63.30	M
	standing for a long time	Always	27	27				
4.	Take enough sleep per day (7	Never	9	9				
	hours or more)	Sometimes	32	32	2.50	0.66	83.30	H
		Always	59	59				
5.	Stay away from stressful work	Never	14	14				
		Sometimes	56	56	2.16	0.65	72.00	M
		Always	30	30				
6.	Avoid carrying heavy weights	Never	8	8				
		Sometimes	55	55	2.30	0.63	76.70	M
		Always	37	37				
7.	walk in fresh air	Never	7	7				
		Sometimes	72	72	2.14	0.51	71.30	M
		Always	21	21				
8.	Stay away from crowded places	Never	4	4	2.61	0.57	87.00	H
		Sometimes	31	31				

	Always	65	65

(A.D.): Assessment Degree, and with Scoring Scales: [(33.3 - 55.5); (55.6 - 77.7); (77.8 – 100)] Low, Moderate, and High respectively

Table (5) shows summarize subjects responses concerning physical care management. The results show that scoring assessed, "**Moderate and High**", degrees are accounted 6(75%), 2(25%) respectively, while no one among the studied items are formed low assessment.

Table (6): Relationships between Socio Demographic Characteristics Variable and Body Mass Index) in Contrasts of Redistribution of Overall Assessment Regarding Self-Management for Pregnant Women.

Main Domain	Demographical Characteristics	Total sample C.C.	Sig.	C.S.*
Overall Assessments	Age Groups	0.207	0.346	NS
	Educational - wife	0.187	0.727	NS
	Socio-Economic Status	0.044	0.662	NS
	BMI	0.078	0.735	NS

(*) NS: Non Sig. at P>0.05; Test statistic based on Contingency Coefficient(C.C.).

Table (6) show that all of the contingency coefficients are reported weak relationships with no significant differences at P>0.05 between different SDCv., and BMI). and the studied of an overall assessment .

DISCUSSION:

The finding of the study revealed that the age of most pregnant woman ranged from (30 -34) years and they accounted (26%) with a mean and SD (31.54 ± 6.66) with no significant differences at p >0.05. The findings of this study agree with study done by Von Schmidt auf Altenstadt et al ., (2013)who concluded that preeclampsia increases the risk of postpartum In Netherlands that pregnant women are ranged from (30 -34) years and they accounted (35.9%)**(13).**

The educational level for most pregnant women was a primary school graduate (46%). This finding agree with finding of Owiredu et al ., (2012) about Putative risk factor of pregnancy induced hypertension among Ghanaian pregnant women) who conducted a study on 100 pregnant women with pregnancy induced hypertension selected from Komfo Anokye Teaching Hospital in Ghana . They reported that educational level did not significantly influence the risk of developing pregnancy induced hypertension from this study**(14).**

Most of the studied sample are from low socio – economic status , and they are accounted (83%), then followed with moderate status, and accounted for (17%), and no individual are reported from high status, with highly significant difference is illustrated among this distribution at P<0.01. The finding of this study agree with a cross-sectional study in India done by Yucesoy et al.,(2005)among 100 pregnant women with pregnancy induced hypertension , those were reported from low socio – economic status which

pregnancy induced hypertension was highly among them and having poor access to antenatal care[15].

More than half of the study sample (56%) are within obese weight group, then followed within overweight group(34%) , and the remaining within normal weight group (10%), as well as, mean and standard deviation are 30.8 ± 4.8.The finding of this study agree with study done by Villamor&Cnattingius, (2006); Anorlu et al., (2005); Bodnar et al., (2005)who had reported that the risk of developing pregnancy induced hypertension positively associated with maternal obesity as measured by maternal body mass index (BMI). This corroborates the findings of several studies where a strong association between increased maternal body mass and risk of preeclampsia[16] [17][18] .

Obesity is associated with insulin resistance, dyslipidemia, chronic inflammation and oxidative stress Reilly & Rader,(2003) [19], all of which have been demonstrated in women presenting with pregnancy induced hypertension (Ahenkorah et al., (2008); Turpin et al.,(2008)) [20][21].

Additionally , Liu et al.,(2009)study in China that the incidence of pregnancy induced hypertension tends to rise with an increasing body mass index . Overweight and obesity are an increasing problem in cities of Ghana which will exacerbate pregnancy induced hypertension levels in Ghana[22].

The present study showed (high and moderate) knowledge of the study sample for items regarding (Management related to intake of food pattern) . The total assessment of the study sample knowledge regarding this domain is (High) since RS is (78.7%). The women s responses were High for (5) out of (15) items which refers to : 8" Take white meat (fish and chicken) " 10 " Take fresh vegetable and fruit " 12" Drink a lot of tea and coffee " 13" Drink a lot of water (eight cups per day) " 14 " Drink all kinds of juice " and Moderate for (10) out of (15) items which refers to : 1 " Avoid adding salt to food "2 " Take fast food " 3 " Take pickles and spices " 4 " Take food which is rich with fat " 5 " Take food is rich with protein " 6 " Take less sugar and starch " 7 " Take red meat " 9 " Take nuts and raisins " 11" Drink a lot of soft drink " 15 " Committee to diet as prescribed to me by a physician "

U.S department of health and human service ,(2005) reported "Nutrition risk criterion for hypertension in pregnancy " regarding an increase intake of fruits and vegetables (92.8%) and a decrease in intake of fat foods (78.9%) to reduce recurrence of preeclampsia [23].

Self-care knowledge of women about physical care management item were (high and moderate) . The total assessment of the study sample knowledge regarding this domain is (Moderate) since RS is (73.04 %). Women ’s responses were (High) for (2) out of (8) items which refers to : 4 " Take enough sleep per day (7 hours or more) " 8 " Stay away from crowded places" and (Moderate) for (6) out of (8) items which refers to: 1 " Practice exercise regularly such as walking " 2 " Take a period of relaxation (lying down, sitting) when I feel tired "3 " Lift the leg to the top a little when lie down or sitting after standing for a long time" 5 " Stay away from stressful work " 6 " Avoid carrying heavy weights "7 " walk in fresh air"

Streuling et al.,(2011)suggested that physical activity during pregnancy might be successful in restricting excessive weight gain. It showed that, sitting time was positively

associated with gestational weight gain in the binary logistic model for inadequate vs adequate weight gain[24].

Rudra et al .,(2005)have observed that women who very strenuous to maximal exertion during usual pre pregnancy physical activity were 78% less likely to develop preeclampsia than women who reported negligible or minimal exertion[25].

The results show that there is weak relationships with no significant differences at $p>0.05$ between different socio demographic characteristics variables, body mass index and over-all assessment of self-care management for pregnant women related to pregnancy induced hypertension .So it could be concluded that the studied problems concerning self-care management for pregnant women could be amend for all studied women whatever differences are reported with their Socio demographic characteristics and body mass index (BMI) .

CONCLUSION:

The study concludes that the level of self-care management for pregnant women toward pregnancy induced hypertension was moderate.

RECOMMENDATIONS:

The study recommended to increased awareness of pregnant women about pregnancy complications especially pregnancy induced hypertension through educational programs and mass media. Further studies are recommended to research about increasing awareness to self-care management toward pregnancy induced hypertension and its effect on maternal and fetal health.

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