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Selected Antenatal Health Care Parameters of Pregnant Women's in Duhok Province, Iraq

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مؤشرات مختارة للأمهات الحوامل للعناية الصحية قبل الولادة في محافظة دهوك- العراق

الخلاصة:

أن العناية الصحية للنساء الحوام تعني الخدمات الصحية المقدمة اثناء فترة الحمل وتشمل المراقبة الدقيقة لصحة الام وصحة جنينها طيلة فترة الحمل، إذ يهدف البحث الى تقييم تلك الخدمات من خلال مؤشرات مختارة للعناية الصحية إثناء فترة الحمل في محافظة دهوك- العراق، وتم اجراء دراسة مقطعية ميدانية لتقييم البيانات المجمعة لأكثر من 225 حالة تتعلق بمستوى التعليم ومدى الالتزام بتعليمات وارشادات رعاية الحوامل بشكل صحيح، بافتراض وجود علاقة إحصائية ذات دلالة معنوية مستوى التعليم، النظافة الشخصية، تنظيم الاسرة، والاجهاد الجسماني، والعادات الشخصية، والتغذية، والرعاية الصحية الاولية. توصلت الدراسة الى اهمية التعليم بالنسبة للنساء الحوامل اثناء فترة الحمل وضرورة الالتزام بالمتابعة كما هو مخطط له طبقا للمعايير البحثية، ويوصي البحث بالتأكيد على اهمية اعتماد المعايير المشار إليها من كافة الكوادر الطبية المعنية برعاية النساء الحوامل في مراكز الرعاية الصحية الاولية.

الكلمات المفتاحية: العناية الصحية قبل الولادة, الامهات الحوامل, الرعاية الصحية الاولية, العادات الشخصية, محافظة دهوك.

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Abstract:

The health care for the hovering women means the health services provided during pregnancy and includes careful monitoring of the mother's health and the health of her fetus throughout pregnancy, as the research aims to evaluate these services through selected indicators of health care during pregnancy in Dohuk Governorate - Iraq, and a cross-sectional field study was conducted. To evaluate the data collected for more than 225 cases related to the level of education and the extent of adherence to the instructions and instructions for the care of pregnant women correctly, assuming the existence of a significant statistical relationship of significant level of education, personal hygiene, family planning, physical stress, personal habits, nutrition and primary health care The study found the importance of education for pregnant women during pregnancy and the need to adhere to follow-up as planned according to the research standards, and the research recommends emphasizing the importance of adopting the standards referred to by all medical personnel involved in caring for pregnant women in primary health care centers.

Keywords: Antenatal Care, Pregnant Mothers, PHC, Personal Habits, Duhok.

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Introduction:

Prenatal (Antenatal) care refers to health services accessed by a woman during her pregnancy and involves careful monitoring of her health and her unborn child's health throughout the pregnancy (1, 2).

Emerging evidence indicates that prenatal care may reduce adverse birth outcomes (3, 4).

The aim of health education during antenatal is to provide advice, education, To short introduction and support, to address and treat the minor problems of pregnancy, and to provide effective screening during the pregnancy (5).

Antenatal care (ANC) is a careful, systematic assessment and follow-up of pregnant women that includes education, counseling, screening, and treatment to assure the best possible health of the mother and her fetus (6, 7).

Objectives:

To evaluate the data collected from pregnant mothers concerning their standard of education as well as their abidance to proper healthy maternal care advices and instructions.

Patients and methods:

A cross sectional field study was performed to evaluate the data collected from pregnant mothers concerning their standard of education as well as their abidance to proper healthy maternal care advices and instructions.

The samples collected included 255 surveyed pregnant mothers attending various PHC centers in Dohuk governorate (Duhok, Aqree,

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Zakho, Sumail, Batofa, Shexan, Amedy, Barderash) for the period from (1-sep-2016 to 1-june-2017).

A special questionnaire containing 43 questions was arranged & data collected by direct interview.

Statistical analysis:

Open Epi V.2.3 statistical program is dependent for descriptive statistics analysis and non-parametric Chi square applied for organization and inferential of obtained results.

Frequency tables for seven categories and Probabilities (P=0.05 or 0.01 or 0.001) are dependent for significance.

Categories include standard of education, personal hygiene, family planning, precautionary physical factors, personal habits during pregnancy, dietary factors and PHC visits.

Results:

Standard of Education categories (table 1) frequencies are dispersed into pregnant mothers holders of post graduate degree 0.39%, holders of college/university degree 7.45%, holders of institute degree 12.15%, holders of high secondary school degree 21.17%, holders of intermediate school degree 15.68%, holders of primary school degree 21.17%, those who just read & write 3.13%, and those who are illiterate 18.82%. In total significance of 0.001 between educated (n=207, 81.14%) and non-educated (n=48, 18.82%).

Distribution according to personal hygiene (Table 2) revealed that 58.03% of pregnant mothers bathe daily with luke water, 53.72% wash both of breasts with water & soap & dry them properly, 67.84% change daily their whole body clothes, 40.39% massage their nipples during last

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2 months of pregnancy. Insignificance between 0.05 to 0.001 to all but except washing breasts or daily brushing teeth.

Table 3 reveals that 40% use contraceptive methods, 62.35% spacing at least 2 years interval

Table 4 shows that 67.45% avoid heavy home works during pregnancy, 67.84% avoid lifting heavy weights to prevent miscarriage, 58.43% avoid standing for long periods of time to prevent leg varicose veins, 67.05% limit travelling during last 3 months of pregnancy, 71.37% limit sexual intercourse during last 3 months of pregnancy, 59.60% abstain sexual intercourse during 9th month of pregnancy.

Table 5 shows that 63.13% walk daily for about one hour in open air, 49.80% avoid spending long time with mobile, 51.76% avoid watching TV for long hours, 62.74% avoid having plenty of xanthines (Tea, Coffee, Cocao, etc…) especially at night, 70.19% never smoke cigarettes & Nargela, 66.27% avoid wearing high heel shoes, 63.52% avoid wearing tight cloths, 71.37% have daily enough rest & sleep.

Table 6 reveals that 69.01% drink plenty of fluids, 71.76% avoid constipation by having plenty of fluids, fruits & vegetables, 70.98% have balanced diet, and 66.66% avoid consuming plenty of sweats & fatty diets.

Finally in table 7 we find that 69.80% never take medicines without doctor's consultation (drug abuse), 63.13% monitor their body weight precisely, 75.29% report PHC centers twice for ultrasonography during pregnancy, 55.29% get their blood pressure measured regularly, 60.78% get their urine analyzed regularly, 72.54% receive anti-tetanus vaccine in time, 55.29% get their blood sugar levels measured regularly, 66.66%

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report PHC centers in case of having headache, legs or feet edema, severe vomiting, dyspnea or any other symptom, 82.74% report gynecologist whenever having vaginal complaint and finally 61.96% report PHC centers monthly during the 1st. 6th months of pregnancy, then fortnightly during 7-8th months and finally weekly during 9th month of pregnancy.

Table (1): Standard of education of Pregnant Mothers in Duhok Province

Standard of education categories (No. of pregnant mothers)	Total (n)	%	Total	Probability (P)
Post graduate degree	1	0.39	Educated (n=207)=81.14%	0.001
College/university degree	19	7.45		
Institute degree	31	12.15		
High secondary school degree	54	21.17		
Intermediate school degree	40	15.68		
Primary school degree	54	21.17		
Just read & write	8	3.13		
Illiterate	48	18.82	Non educated (n=48)= 18.82%	

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Table (2): Distribution according to personal hygiene of Pregnant Mothers in Duhok Province					
Personal hygiene categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**(P)**
Bathing daily with Luke water	**148**	**58.03%**	**107**	**255**	**0.05**
Washing breasts with water & soap & dry them properly	**137**	**53.72%**	**118**	**255**	**0.1**
Changing daily whole body clothes	**173**	**67.84%**	**82**	**255**	**0.001**
Massaging nipples during last 2 months of pregnancy	**103**	**40.39%**	**152**	**255**	**0.05**
Daily brushing teeth & regularly reporting dentist	**137**	**53.72%**	**118**	**255**	**0.2**

Table (3): Distribution of pregnant mothers in Duhok Province according to family planning					
Family planning categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**P**
Using contraceptive methods	**102**	**40%**	**153**	**255**	**0.05**
Spacing at least 2 years interval between pregnancies	**159**	**62.35%**	**96**	**255**	**0.05**

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Table (4): Distribution of pregnant mothers in Duhok Province according to precautionary physical factors					
Precautionary physical factors categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**P**
Avoiding heavy home works during pregnancy	**172**	**67.45%**	**83**	**255**	**0.001**
Avoiding lifting heavy weights to prevent miscarriage	**173**	**67.84%**	**82**	**255**	**0.001**
Avoiding standing for long periods of time to prevent leg varicose veins	**149**	**58.43%**	**106**	**255**	**0.05**
Limiting travelling during last 3 months of pregnancy	**171**	**67.05%**	**84**	**255**	**0.001**
Limiting sexual intercourse during last 3 months of pregnancy	**182**	**71.37%**	**73**	**255**	**0.001**
Abstaining sexual intercourse during 9^{th} month of pregnancy	**152**	**59.60%**	**103**	**255**	**0.05**

Table (5): Distribution of pregnant mothers in Duhok Province according to personal habits during pregnancy					
Personal habits during pregnancy categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**P**
Walking daily for about one hour in open air	**161**	**63.13%**	**94**	**255**	**0.001**
Avoiding spending long time with mobile	**127**	**49.80%**	**128**	**255**	**0.4823**
Avoiding watching TV for long hours	**132**	**51.76%**	**123**	**255**	**0.3451**
Avoiding having plenty of Xanthines (tea, coffee, cocao, etc…) especially at night	**160**	**62.74%**	**95**	**255**	**0.05**
Never smoking cigarettes & narggela	**179**	**70.19%**	**76**	**255**	**0.001**
Avoiding wearing high heel shoes	**169**	**66.27%**	**86**	**255**	**0.001**
Avoiding wearing tight cloths	**162**	**63.52%**	**93**	**255**	**0.001**
Having daily enough rest & sleep	**182**	**71.37%**	**73**	**255**	**0.001**

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Table (6): Distribution of pregnant mothers in Duhok province according to dietary factors					
Dietary factors categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**P**
Drinking plenty of fluids	**176**	**69.01%**	**79**	**255**	**0.001**
Avoiding constipation by having plenty of fluids, fruits & vegetables	**183**	**71.76%**	**72**	**255**	**0.001**
Having balanced diet	**181**	**70.98%**	**74**	**255**	**0.001**
Avoiding consuming plenty of sweats & fatty diets	**170**	**66.66%**	**85**	**255**	**0.05**

Table (7): Distribution of pregnant mothers in Duhok province according to abidance to PHC visits					
PHC visits categories	**Yes (n)**	**%**	**No (n)**	**Total (n)**	**P**
Never having medicines without doctor's consultation(drug abuse)	**178**	**69.80%**	**77**	**255**	**0.001**
Monitoring body weight precisely	**161**	**63.13%**	**94**	**255**	**0.001**
Reporting PHC centers twice for Ultra-Sonography during pregnancy	**192**	**75.29%**	**63**	**255**	**0.001**
Measuring blood pressure regularly	**141**	**55.29%**	**114**	**255**	**0.001**
Analysing urine regularly	**155**	**60.78%**	**100**	**255**	**0.01**
Receiving anti-tetanus vaccine in time	**185**	**72.54%**	**70**	**255**	**0.001**
Measuring blood sugar levels regularly	**141**	**55.29%**	**114**	**255**	**0.1159**
Reporting PHC centers in case of having headache, legs or feet edema, severe vomiting,	**170**	**66.66%**	**85**	**255**	**0.001**

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dyspnea or any other symptom					
Reporting gynecologist whenever having vaginal complaint	**211**	**82.74%**	**44**	**255**	**0.001**
Reporting PHC centers monthly during the 1st. 6th months, then fortnightly during 7-8th months and finally weekly during 9th month of pregnancy.	**158**	**61.96%**	**97**	**255**	**0.05**

Discussion:

Table 1 result is almost close to results obtained by other researchers who mentioned to a well-known fact that literacy among women in many developing countries is low, and there are sociocultural beliefs and practices with adverse effects on pregnancy and birth occurring even among educated women (8, 9).

Table 2 result does not differ much from what other researchers found in their studies and revealed that improper care of their teeth and gums during pregnancy can have a negative impact on not only the teeth and gums of their babies, but also on birth weight and ability to carry to term (10-11).

Also showed that short birth intervals and unintended pregnancies pose serious health risks to mothers and their infants by causing unnecessary high risk of pregnancy related complications and self-induced abortions (12).

Table 3 result confirms the importance of the fact mentioned by other researchers that benefits of pregnancy planning and child spacing on maternal, infant and child health has been well documented (13-14) .

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Researches have shown that family planning can reduce about 25% to 40% of maternal deaths by preventing unplanned and unwanted pregnancies and about 10% of child deaths by eliminating inter-birth intervals of less than two years (15, 16).

The World Health Organization (WHO) technical consultation on birth spacing recommended a birth to conception interval of at least two years to reduce the risk of adverse maternal, perinatal and infant outcomes (17).

Table 4 result confirms the importance of the fact mentioned by other researchers to avoid sitting or standing in the same position for long periods of time and to make sure to take breaks to change position (18-20)

Similar result is obtained regarding having sex during pregnancy (21, 22).

Table 5 result confirms what other studies insisted upon avoiding wearing high heels and it is better to wear lower-heel or flat shoes as this works calf muscles, fostering healthy circulation and to get regular exercise. (23).

Maintaining of a regular exercise routine throughout pregnancy can help stay healthy and feel best as regular exercise during pregnancy can improve posture and decrease some common discomforts such as backaches and fatigue, in addition there is evidence that physical activity may prevent gestational diabetes, relieve stress, and build more stamina needed for labor and delivery (24-26).

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This result confirms what other studies stated that maternal smoking during pregnancy is consistently reported as a predictor of adverse birth outcomes such as preterm birth and low birth weight as well as fetal and infant mortality.

Although no level of tobacco use during pregnancy is safe, greater smoking intensity measured by the number of cigarettes smoked per day, has been shown to have more deleterious effects on the fetus than lighter smoking (27).

Table 6 result is nearly identical to what most of researchers recommended to drink plenty of water and eat enough fiber to prevent constipation (28).

Also maintaining good nutrition and a healthy diet during pregnancy is critical for the health of the mother and unborn child. WHO recommends a healthy diet during pregnancy containing adequate energy, protein, vitamins and minerals, obtained through the consumption of a variety of foods, including green and orange vegetables, meat, fish, beans, nuts, pasteurized dairy products and fruit.

In addition, maternal malnutrition is a key contributor to poor fetal growth, low birth weight (LBW) and short- and long-term infant morbidity and mortality.

There's no magic formula for a healthy pregnancy diet. In fact, during pregnancy the basic principles of healthy eating remain the same - get plenty of fruits, vegetables, whole grains, lean protein and healthy fats.

The nutritional status of a woman before and during pregnancy is important for a healthy pregnancy outcome. Maternal malnutrition is a

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key contributor to poor fetal growth, low birth weight (LBW) and short- and long-term infant morbidity and mortality. Nutritional education to increase protein and energy intake decreases the risk of preterm birth and low birth weight, with a relative increase of almost half a kilogram in the birth weight of infants born to undernourished women, nutritional education was found to be effective in reducing the risk of preterm birth and low birth weight, improving head circumference at birth, and in improving birth weight among infants born to undernourished women. Balanced energy/protein supplementation reduced the risk of stillbirth and small-for-gestational age, and improved birth weight (29, 30). Table 7 results does not differ from other studies which concluded that hypertension is the most common medical problem encountered during pregnancy, complicating up to 10% of pregnancies (31, 32).

Urine screen is primarily performed to check for urinary tract infections and approximately 2-3% of women will develop gestational diabetes in their pregnancy (33, 34). Finally routine visits by pregnant women to PHC centers are important and should be attended as scheduled monthly during the 1st. 6th months, then fortnightly during 7-8th months and finally weekly during 9th month of pregnancy. (35).

Conclusion:

Health education of pregnant mothers during the antenatal care session is very essential.

Recommendations:

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Questionnaire should be emphasized upon all medical staff dealing with pregnant mothers in PHC centers.

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