Assessment of pregnant women's knowledge and practices concerning prenatal care who attend primary health care centers in Baghdad City

Ishraq F. Shalash, M.Sc.N.*
Fatin A. Mohammed, PhD**

* **Academic Nurse, Ministry of Health**
** **Assistant Professor, Maternal and Child Health Nursing Department, College of Nursing, University of Baghdad**

المستخلص

الهدف: تقييم معارف النساء الحوامل المتعلقة بالعناية ما قبل الولادة اللواتي يراجعن مراكز الرعاية الصحية الاولية في مدينة بغداد.

المنهجية: دراسة وصفية تحليلية أجريت على (١٠٠) امرأة حامل من مراجعات مراكز الرعاية الصحية الاولية في مدينة بغداد(٥٠) إمرأة من مركز الرعاية الصحية الاولية في الشيخ عمر/ قاطع الرصافة و (٥٠) إمرأة من مركز بلاط الشهداء للرعاية الصحية الاولية/ قاطع الكرخ، خلال المُدّة من نيسان ولغاية تشرين الثاني ٢٠١١. تمّ جمع البيانات عن طريق المقابلة وبإستعمال الاستمارة الاستبيانية. اختيار صدق وثبات الاستمارة خلال فريق من الخبراء والدراسة الاستدلالية. تمّ تحليل البيانات بإستعدمال أسلوب التحليل الإحصائي الوصفي والاستنتاجي.

النتائج: اظهرت النتائج ان ٢٨%من النساء الحوامل تتراوح اعمارهن بين ١٩-١٥ سنة وان ٤٢% منهن لايجدن القراءة والكتابة و٥٤% منهن من مستوى اجتماعي اقتصادي واطئ . ٦١% لديهن حمل سابق يتراوح ما بين ١-٢ حمل و٤٨% لديهن ولادات سابقة تتراوح ١-٢ ايضا و٢٦% لديهن اسقاط يتراوح ما بين ١-٢ و غالبية النساء الحوامل ٧٨% زرن المراكز الصحية من ١-٢ زيارة فقط. وأظهرت النتائج بأنه لا توجد علاقة ذات دلالة احصائية بين الخصائص الديموغرافية و الاجتماعية و معارف النساء الحوامل المتعلقة بالعناية ما قبل الولادة. وان عدد الزيارات لمراكز الرعاية الصحية له علاقة ذات دلاله احصائية على معارف النساء الحوامل.

التوصيات :أوصت الدراسة بالتأكيد على توعية الامهات من خلال التثقيف الصحي حول اهمية الزيارات المنتظمة الى مراكز الرعاية الصحية خلال الحمل.

Abstract

Objective: To assess knowledge of pregnant women concerning prenatal care who attend primary health care center in Baghdad city.

Methodology: A descriptive analytic study carried on (100) pregnant women who attend primary health care centers in Baghdad city (50) of them from Al- Sheik Omer primary health care center \Resafa sector .and 50 from Belat Al-Shuhadaa/ Al Karch sector, during the period from April to November 2011. The data were collected through interview and use questionnaire format. Validity and Reliability of the questionnaire were determined through panel of experts and pilot study, data were analysed through the application of descriptive statistical analysis and inferential statistical analysis.

Results: The results revealed that (28%) of pregnant women their ages ranged between 15-19 years, (48%) were not read and write, (54%) from low socioeconomic status. (61%) had 1-2 gravida, (48%) had 1-2 para, 26% had 1-2 abortion and 78%attended primary health care center 1-2 visits only. The result indicates that there is no significant relationship between sociodemographic characteristic and knowledge of pregnant women concerning prenatal care, while there is significant relationship between number of prenatal care visits and knowledge of the pregnant women.

Recommendations: The study recommended an emphasis on health education for mothers' awareness of the importance of regular visits to primary health care center during pregnancy.

Keywords: prenatal care, pregnant women, primary health care

Pregnant women's knowledge and practices and prenatal care

Introduction:

Maternal mortality and morbidity are a major public health concern in many countries .Despite concentrated efforts made by the (WHO) over the past few decades to improve maternal health in the countries; maternal morbidity and mortality remain high, and still account for (40%) of the world. Generally, maternal mortality is estimated as 500,000 maternal deaths each year, of which 99% occur in developing countries [(1)].

Prenatal care is an effective health intervention care for reducing the risk of maternal morbidity and mortality, particularly in places where the general health status of women is poor. Studies indicate that the risk of maternal morbidity and mortality are significantly higher among women who do not receive prenatal health-care services compared to women who do so. Prenatal care is also efficient services of prenatal care for reduce the complications during pregnancy, higher birth weights, and lower rates of perinatal, neonatal, infant and child mortality [(2)].

This study aims at: -

1. Assessing the pregnant women's knowledge concerning prenatal care.
2. Finding out the relationship between pregnant woman's knowledge with certain variables; age -educational level, socioeconomic status, gravidity, parity and number prenatal care visits.

Methodology:

A descriptive study, which is appropriately structured for the assessment of knowledge concerning prenatal care for women who attend primary health care centers in Baghdad city .Through the period from April to November 2011. A purposive "non–probability" sample consisted (100) pregnant women who attend primary health care center ,50 from Al-Sheik Omer center at Al-resafa sector and 50 from Bealat Al –Shuhadaa center at Al-Karh sector. Construction of the questionnaire was through an extensive review of literature and previous studies. It comprised of Part One: Sociodemographic Characteristics, Part Two: Reproductive History, Part Three: This part concerning the knowledge of pregnant women about prenatal care, this part includes the following domains: *Visits to primary health care center; it was comprised of 4 multiple choice questions. *Medical examinations &services it was comprised of 6 multiple choice questions. * Vaccines it was comprised of 5 multiple choice questions. *Signs &Symptom of pregnancy, it was comprised of 5 multiple choice questions. *Minor discomfort during pregnancy, it was comprised of 5 multiple choice questions. * Healthy practices during pregnancy (including six healthy practices ,which are related to (nutrition ,exercise , rest and sleep , cleanliness ,risk factors ,and breast feeding) ,each practice include 4-6 multiple choice questions.

How Assess the Pregnant Women's knowledge:-

To assess the knowledge of study group that are based on mean score (MS), cut of point and relative sufficiency (RS) and as follow:-

Cut of point 0+1/ 2= 0.5

MS above 0.5 means good knowledge (pass).

MS below 0.5 means poor knowledge (failure).

Results:

Table 1. Participants' socio-demographic characteristics and some related variables

Variables	Groups	f	%	χ2 or Bin.	df	Asymp. Sig.	C.S.
Age Groups	15 – 19	28	28	25.88	5	0.000	HS
	20 – 24	25	25				
	25 – 29	16	16				
	30 – 34	18	18				
	35 – 39	10	10				
	40 – 44	3	3				
$\bar{x} \mp S.D.$		25.05 ∓ 7.13					
Education level	Not read and write	42	42	34.10	4	0.000	HS
	Primary school	19	19				
	Intermediate school	18	18				
	Secondary school	8	8				
	Institute or more	13	13				
Employment	House wife	88	88	-	-	0.000	HS
	Office work	11	11				
	Student	1	1				
Type family	Single	36	36	-	-	0.007	HS
	Extended	64	64				
Socioeconomic Status	High	6	6	36.56	2	0.000	HS
	Middle	40	40				
	Low	54	54				
Smoking in husbands	No	55	55	-	-	0.368	NS
	Yes	45	45				
No. of smoking cigarettes	Non Smoking	55	55	151.02	2	0.000	HS
	Smoking (< 20 cigarettes)	2	2				
	Heavy (20 ≥ cigarettes)	43	43				
Duration of smoking husbands	Non	55	55	7.00	3	0.072	NS
	<5yrs	16	16				
	<10yrs	12	12				
	<15yrs	13	13				
	15≥yrs	4	4				
Drinking husbands	No	92	92	-	-	0.000	HS
	Yes	8	8				
Take medication without prescription	No	75	75	-	-	0.000	HS
	Yes	25	25				

Table 1. Continued

df=degree of freedom; f. =Frequency; HS= Highly significant; NS= Non-significant; χ2=chi-square, CS=Correlated Significant, Sig.=significant ; χ2- Chi-square test; %=percentage,

Table (1) demonstrates that the highest percentage of the study sample (28%) were in age group of (15 - 19 yrs.)With mean (25.05+7.13), the majority of the study sample (42%) do not read and write, the result indicated that the highest percentage were un employed (house wives) and they accounted for 88%. Regarding to the subject's family type, the majority of the sample are extended and they accounted (64%). highest percentage of the study sample were from low socioeconomic

status and they accounted for (54%). Highly percentages of smoking for (45%) and were heavy smokers with (96%) and they accounted for (8%) with alcoholism of the overall sample. Regarding to the subjects "Take medication without Prescription ", the result indicates that 75% of the study group responded negatively (no).

Table 2. knowledge related to Prenatal Care among Pregnant Women

Dom.	Items of Pregnant women (knowledge) of prenatal care	f.	M.S.	S.D.	R.S. %	Ass.
Visits to Primary Health Care Center	Visits of the pregnant woman for primary health care centre include:	100	0.70	0.46	70	Success
	The goals of care for pregnant women:	100	0.48	0.5	48	Failure
	Inadequate prenatal care means:	100	0.40	0.49	40	Failure
	Inadequate prenatal care for pregnant woman leads to :	100	0.57	0.50	57	Success
Medical Examinations and Services	Services provided in the first prenatal care visit to primary health care center are:	100	0.63	0.49	63	Success
	Examination for the pregnant women in the first prenatal care visit to the primary health care center includes:	100	0.72	0.45	72	Success
	Benefit of using ultrasound during pregnancy is :	100	0.73	0.45	73	Success
	Urine examination for the pregnant women should be carried in :	100	0.39	0.49	39	Failure
	Blood test for pregnant women to investigate the presence of diabetes should be carried for :	100	0.53	0.50	53	Success
	Blood test should be carried for every pregnant woman to investigate: -	100	0.39	0.49	39	Failure
Vaccination	Vaccine, which pollinate by pregnant women during pregnancy is:	100	0.97	0.17	97	Success
	Tetanus vaccine is:	100	0.67	0.47	67	Success
	Tetanus Vaccination of Pregnant Women should be during	100	0.61	0.49	61	Success
	First dose of tetanus vaccine prefer to be taken during:	100	0.95	0.22	95	Success
	Vaccination of the infected pregnant woman (eg influent) with tetanus vaccine ;	100	0.66	0.48	66	Success
Signs and symptoms of pregnancy	The pregnancy is :	100	0.69	0.46	69	Success
	Cessation of menses is one of pregnancy signs :	100	0.34	0.48	34	Failure
	The mother first feel of fetal movement at :	100	0.90	0.30	90	Success
	Natural vaginal secretions during pregnancy:	100	0.54	0.50	54	Success
	The period of pregnancy is divided into:	100	0.90	0.30	90	Success
Minor Discomfort During Pregnancy	Light minor discomfort during pregnancy include:	100	0.86	0.35	86	Success
	Frequent urination in pregnancy occurs through:	100	0.44	0.50	44	Failure
	Frequent urination caused by;	100	0.89	0.31	89	Success
	Varicose veins is a minor discomfort of pregnancy ,which can be relived through :	100	0.31	0.46	31	Failure
	The appearance of spots on the face and abdomen during pregnancy is due to:	100	0.76	0.43	76	Success

Ass.= Assessment; df=degree of freedom ; f. =Frequency; M.S.= Mean of scores; RS= Relative sufficiency; SD= Standard deviation; x2=chi-square; %=percentage

Table (2) reveals that assessment of pregnant women's knowledge of prenatal care items responding were success with 72% and with upper cut (50%) of point, which indicated that most of the studied individuals assessed as successes.

Table 3. Knowledge of Pregnant Women's regarding Health Practices during Pregnancy

Section	Items of(Health practices) for pregnant women	f.	M.S.	SD	R.S. %	Ass.
Nutrition	1-Nutrition during pregnancy for pregnant women depend on:	100	0.43	0.5	43	Failure
	2-Good nutrition for pregnant women to be rich	100	0.67	0.47	67	Success
	3-The most important vitamins that Should be taken during pregnancy are	100	0.97	0.17	97	Success
	4-Given folic acid for the pregnant women during pregnancy for the following reasons	100	0.19	0.39	19	Failure
	5-Importance of protein during pregnancy are	100	0.39	0.49	39	Failure
	6-The increased demand of pregnant women for some	100	0.96	0.20	96	Success
Exercises	1-Exercise during pregnancy helps in	100	0.51	0.5	51	Success
	2- Exercise during pregnancy includes	100	0.73	0.45	73	Success
	3- The recommended weight gain during pregnancy	100	0.67	0.47	67	Success
Rest and sleep	1- The sleep for the pregnant woman is :	100	0.38	0.49	38	Failure
	2-Stress at work leads to :	100	0.89	0.31	89	Success
	3-The Pregnant women that work any day , needs to :	100	0.46	0.5	46	Failure
	4-Rest for pregnant woman include :	100	0.60	0.49	60	Success
The Cleanliness	1-Personal Cleanliness for pregnant women include:	100	0.79	0.41	79	Success
	2-Bath of pregnant women should be:	100	0.92	0.27	92	Success
	3-Breast Care include	100	0.28	0.45	28	Failure
	4-Dental care during pregnancy is important for:	100	0.52	0.50	52	Success
	5-To reduce the incidence of infections of the genital area:	100	0.92	0.27	92	Success
Risk factors during pregnancy	1-The best age to giving birth is:	100	0.87	0.34	87	Success
	2-The descent of milk from the breast during the last months of pregnancy is	100	0.69	0.46	69	Success
	3-In the case of placenta previa , the pregnant women need to:	100	0.55	0.50	55	Success
	4-Complication of diabetes on pregnant women are :	100	0.42	0.50	42	Failure
	5- Pregnant go to the doctor immediately when feeling by:	100	0.92	0.27	92	Success
Breast feeding	1- Benefits of breastfeeding are:	100	0.95	0.22	95	Success
	2-Initiate breastfeeding to the new born:	100	0.59	0.49	59	Success
	3-Period of time for breastfeeding to be:	100	0.49	0.50	49	Failure
	4-The mother Should breastfeeding her newborn because:	100	0.67	0.47	67	Success

f=Frequency, %=percentage, x2=chi-square, df=degree of freedom, CS=Comparative significance

Table (3) reveals that assessment of pregnant women's (Health practices) of prenatal care items responding were success with 70, 4% and with upper cut of point which indicated that most of studied individuals assessed as successes.

Table 4. Association between studied variables and pregnant women's knowledge concerning prenatal care responding

Demographical Characteristics X Improvement Status(*)	Contingency Coefficients	Approx. Sig.	C.S.
Age Groups	0.158	0.765	NS
Education level	0.224	0.258	NS
Socioeconomic Status	0.116	0.507	NS
Number of gravidity	0.108	0.554	NS
Number of parity	0.320	0.044	S
Number of prenatal care visits	0.373	0.007	HS

CS=Correlated Significant, Sig.=significant

This table shows that there is no statistically significant relationship at p>0, 05 with the socio demographical characteristics and some related variables except with the number of prenatal care visits.

Discussion:

The study finding shows the 28% of the study sample were with in age group 15-19 years. Darline (2004) reported that age of less than 18 year is at risk of physical immaturity and old mothers of 35 year old or more are higher risk of fetal morbidity and mortality (3). The educational level for 42% of the study sample was not read and writes. Obah (2010) reported that mothers of poor level of education, poor life habits, maltreatment stress and depression in addition young mother are at greater risk of leaving school or attaining a lower level of education [(4)].The majority (88%)of pregnant women's were housewives. Buman (2004) reported that woman's employment during pregnancy may have adverse effect on her child health specially risk of low birth weight preterm [(5)].The finding reveals that (54%) of pregnant women were at low standard of socio economic status .Many reports suggested that lack of knowledge is one of the contributing factor for poor health among many people of low socioeconomic status . 6The result reveal that (61%)of the study sample had 1-2 pregnancies ,48%of them had 1-2 deliveries ,and 26% of pregnant women had 1-2 abortions . The finding indicates that 78% of the pregnant women visited prenatal care 1-2 visits only .Johan, (2000) mentioned that adequate prenatal visits provide more information about the extent of provider content.

Table 1. Socio demographic characteristics of the Study Sample

Age: 28% of the study sample were within age group (15- 19) years. Dickason, etal ,(1998) reported that the age of less than 18 year is at risk of physical immaturity ,and old mothers of 35 years old or more are at higher risk of fetal morbidity and mortality .

Educational level:

The educational level for (42%) of the study sample was very low (not read and write) .This result agrees with Obah, (2010) who reported that mothers of poor level of education often face the following consequences: social isolation Poor life habits, maltreatment stress, and depression in addition young mother are at greater risk of leaving school or attaining a lower level of education. **Employment:** The majority (88%) of pregnant women's was house wives.

Buman, (2004) reported that woman's employment during pregnancy may have an adverse effect on her child's health especially risk of low birth weight and preterm.

Socioeconomic Status: The finding reveals that (54%)of pregnant women were at low standard of social status while the lowest percentage (6%)were at high standard .Many reports suggested that lack of knowledge is one of the contributing factor for poor health among many people of low socioeconomic status .(National center for educational statistics ,2008).

Smoking in husband: This finding reveals that (45%) of husband were smoker and (96%) of them, were heavy smoker .Krisa, (2009) reported that several studies have suggested that smoking may be associated with decreased fertility among both women and men.

Medication without prescription: The result indicates that (75%) of study group did not take medication without prescription .that mean the study sample had knowledge about the effect of take medication with out prescription .

Table 2: knowledge related to Prenatal Care of Pregnant Women.

The results indicate that there is a 50% of pregnant women had adequate knowledge concerning first domain (visits to primary health care center). Reported that ideally, women who are pregnant should early visit a physician so that they can be counseled about pregnancy risks and ways to reduce them. The initial routine prenatal visit should occur between 6 and 8 weeks gestation. Follow-up visits should occur at about 4-wk intervals until 28 week, at 2-wk intervals from 28 to 36 week, and weekly there after until delivery9. Prenatal care includes screening for disorders, taking measures to reduce fetal and maternal risks, and counseling. While the second domain (medical Examination and health services) the result indicates that most of the study group 80%were success9 .WHO, (2007) reported that pregnant women and community membership has been shown to care services. Especially adolescent's pregnant women need services that are specifically targeted to their needs. Most of the study group results indicate successes as a good response for third domain (Vaccination) [10].WHO, (2007) reported that prenatal care services provide a convenient opportunity for vaccinating pregnant women to be protected during pregnancy, the dose of tetanus toxoid must be given .The study finding indicates that most of the study group are success with forth domain (signs and symptom of pregnancy) [10]. Darline, (2004)).reported that the pregnancy is aloud causing alterations not just in mothers pelvic organs but all over the body system, the symptoms of early pregnancy are nausea, irritation of the breasts increased, frequency of micturition and amenorrhea .Finally the result of fifth domain (Minor discomfort during pregnancy) indicate that most of the study group are success3 .Rouslle ,(2010)reported that pregnancy symptoms can often cause discomfort in an expectant women providing empathic and sound advice about measures to relieve these discomforts helps promote over all health and well- being Although these symptoms are classified as minor ,they may not seem minor to a women who wakes up each morning feeling nauseated, wondering if she will ever feel like herself again [13].

Table 3. Knowledge of Pregnant Women's regarding Health Practices during Pregnancy.

The findings indicated that the items for most of the study group assessed as success in regarding to (Nutrition). WHO, (2007), a well-balanced diet will provide adequate nutrition for the mother and the fetus during pregnancy. Mothers should be advised to increase intake of protein, calcium, iron and folic acid to ensure proper health of both parties [(9)]. Buman (2004) reported that during pregnancy mother eating for both herself and her baby .At least in the later stage of pregnancy ,she needs to consume more energy than usual preg-nancy also increase nutrient requirements .It is important that the mothers diet contains sufficient protein ,iron ,calcium, folate ,and vitamin C and D for the formation of the baby's muscles ,bones ,and teeth ,and to make hemoglobin most extra nutrients are obtained simply by eating balanced diet that satisfies the increased energy requirements [(5)]. While the second section (Exercises) result indicated that the entire study group was success. Darline (2004) found that women who engage in regular moderate exercise throughout their pregnancies tend to have shorter and less complicated labors, have more energy during pregnancy, gain less weight during pregnancy, experience less tension, anxiety and decrease in the common discomforts of pregnancy .Babies born to exercising women have less body fat compared to babies born to non- exercisers. The exercise is not only good for the mothers, but also good for the babies3. The third section (Rest and Sleep) the result indicates that there is a defective response for the study group. Reported that pregnancy is not the time , however, to take up strenuous exercise for the first time and all pregnant women need to sleep enough time6. The forth section (cleanliness) the results indicate that most of study group were successes .this result not agree with Karen,(2004) who reported that pregnant women regarding their personal hygiene and dental care 70%of them reported that they have no any information about personal hygiene and dental care during pregnancy [(7)]. The fifth section (Risk factors during pregnancy) the result indicated that most of the study group were success. Karen, (2004) reported that pregnant women and fetus and neonate who are at risk will have increased risk of morbidity or mortality before or after delivery. risk assessment is part of routine prenatal care .pregnant women how had good information about what is the risk factors during pregnancy are more likely to have healthy mom and healthy babies[(7)] .The sixth section (Breast feeding) the result indicate that most of the study group were success .WHO,(2007)reported that in developing country setting, the most important potential advantage of exclusive breast feeding for 6months-versus exclusive breast feeding for 4months followed by partial breast feeding to 6months-relates to infectious disease morbidity and mortality especially that due to gastrointestinal infection[(9)]. WHO,(2007) reported that in the last years recommendation for the optimal duration of exclusive breast feeding for 4-6 months, with the introduction of complementary foods there after [(9)]. WHO,(2007) reported in addition to providing essential nutrients to infants, benefits of breast feeding for both children and their mothers have been reported .Reports of the benefits for children include decrease in incidence of otitis media ,lower risk of obesity, and lower risk of asthma [(9)].

Table 4: Association between Studied Variables and Pregnant Women's Knowledge Concerning of Prenatal Care Responding.

Table 3 shows that there is no significant association between different levels of the demographical characteristics among study group and there is no relationship except with "The number of prenatal care visits " .European (2008) reported that prenatal care is a unique opportunity for delivering services simultaneously to a mother and her fetus. Pregnancy and therefore prenatal care is often the entry point for women into the health care system. The services provided during pregnancy and immediately following the delivery of an infant have significant effects on maternal and infant morbidity and mortality. Prenatal care is a window of opportunity for identifying and addressing numerous medical and beha-vioral health issues. For example, pregnancy may be the motivator for a woman to stop smoking or develop healthier eating habits. During prenatal care, the groundwork can be set for establishing a medical home for the infant and mother. It is an opportunity for a young family to enter into the health care system [13].

Most of pregnant women their ages ranged between (15-19) years, they had limited education (not reading and writing).Most of them were housewives and from low socioeconomic. Nearly more half of pregnant women husband were heavy smokers. The majority of study group did not take medication without prescription, most of pregnant women attended prenatal care throughout the current pregnancy irregularly (1-2) visits only. Most of pregnant women had information about health services during pregnancy , most of pregnant women's (knowledge) of prenatal care items responding were success, most of pregnant women's (health practices)of prenatal care items responding were success , The pregnant women's knowledge of prenatal care responding had no statistical relationship at P>0.05 with their socio-demographical characteristics and some related variables except with "The Number of prenatal care visits" and that concluded that the studied phenomena can be amended for all individuals of population of pregnant women whatever differences with their (demographical) characteristics and some related information factors would be.

Recommendations:

The study findings and conclusions contributed to the following recommendations:-

1. Adolescent is considered risk so they need more interesting and regular prenatal care visits.
2. Mass media should play a significant role in presenting the benefits of prenatal care like early diagnosis and treatment of some possible complications during pregnancy.
3. Providing more education and training courses for health team especially nurses to improve their knowledge and to take their roles in teaching and giving advices and instruction to pregnant women during prenatal care.
4. Further studies concerning this issue should be done with larger number.

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