

## ASSESSMENT OF PREGNANT WOMEN'S KNOWLEDGE ABOUT ANTENATAL CARE DURING PREGNANCY AT PRIMARY HEALTH CARE CENTERS IN KIRKUK CITY

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### ABSTRACT

The present study was designed to evaluate pregnant women's practices about antenatal care during pregnancy in primary health care centers in Kirkuk City after implementation of program. A quasi-experimental design was used in the present study with the application of a pre-test/ post-test approach for the study group assessment. The results show the distribution of studied socio-demographical characteristics variables (SDCv), where high number of subjects in study group with age 25-29 years (36%), level of education reach to Institute and college graduate (30%), Occupation was Housewife (66%), Monthly Income was (58%), Residential Area was urban (78%), with Smoking Status was non-smoking (72%). The age at marriage 20-24 years, 42 % of study group period of marriage, while 38% of control group. both group the highest percentage (68%, 88%) respectively were menstruation, number of pregnancy for both groups 52% and 54% and same percentage (88%, 92) for both group were from number of abortion and regarding the para number of baby (58%, 56%), were both group 48% and 56% respectively period between pregnant, while type of delivery for both groups same percentage (56%). Heredity disease study and control group (86%, 98%), while health problem same percentage of both group 78% and 78%. The results about Knowledge and Practices regarding ANC in pre- test of time show that there were no significant differences at  $P>0.05$  accounted between study and control group regarding all items related to practices of ANC.

**Keyword:** Antenatal care; Educational Program; Pregnant women.

### INTRODUCTION

Pregnancy is a significant occasion from both social and restorative perspectives. Along these lines, pregnant ladies ought to get uncommon consideration and consideration from the family, network and from the medicinal services framework. The significant objective of centered antenatal consideration is to assist ladies with keeping up ordinary pregnancies through: wellbeing advancement and infection counteractive action, early discovery and treatment of confusions and existing sicknesses and birth readiness and difficulty status arranging (Kondale *et al.*, 2016). It is a key passage point for pregnant ladies to get a numerous scope of wellbeing administrations, for example, nourishing help and anticipation or treatment of weakness; counteractive action, discovery and treatment of jungle fever, tuberculosis and explicitly transmitted diseases (Kalayou *et al.*, 2014). Antenatal Care is a chance to advance the advantages of gifted participation during childbirth and to urge ladies to look for baby blues care for themselves and their infant. It is additionally a perfect time to advise ladies about the advantages of kid separating (Yang *et al.*, 2010). Be that as it may, Antenatal Care have such appealing advantages and methodologies, as

per the United Nations Millennium Development Goals, consistently, in any event a large portion of a million ladies and young ladies pass on because of complexities during pregnancy, labor or the a month and a half after conveyance. Practically all (99%) of these passing's happen in creating nations. This shows the antenatal consideration movement is frail in creating nation (Ojo 2004).

For LMICs, another WHO model incorporating four ANC visits with the main visit inside the principal trimester has as of late been suggested for ladies with uncomplicated pregnancy. Necessary estimation of circulatory strain, pee, and blood tests just as discretionary weight and stature estimation ought to be done at each visit (WHO 2002). Financially savvy intercessions complimentary to every single pregnant lady is prescribed to guarantee the general access and use of such mediations Over 70% of ladies worldwide have in any event one ANC visit during pregnancy, however the holes between nations are enormous. Inclusion is incredibly high in high-salary nations (98%) contrasted with in LMICs (68%). The most minimal inclusion is found in Southeast Asia, where just 54% of ladies use ANC all through pregnancy (WHO

2006). In most African nations, fewer than 70% of pregnant ladies get ANC, and the vast majority of them have just a couple of visits, at times just late in pregnancy

### Objectives of the study

#### The study aims to:

1. To evaluate pregnant women's knowledge about antenatal care during pregnancy in primary health care centers in Kirkuk City after implementation of program.
2. To evaluate pregnant women's practices about antenatal care during pregnancy at primary health care centers in Kirkuk City after implementation of program.
3. To determine the effectiveness of education program on pregnant women's knowledge and practices about antenatal care during pregnancy in primary health care centers in Kirkuk City.
4. To identify the relationship between these women's knowledge and practices and their demographic characteristics (age, educational level, socioeconomic status....) before and after implementation of program.

### METHODOLOGY

A quasi-experimental design was used in the present study with the application of a pre-test/post-test approach for the study groups assessment, the study was conducted between 2/12/2018 to 6/10/2019.

**Administrative arrangement and ethical consideration:** In the wake of getting the endorsement of the chamber of nursing school for the examination, and preceding information assortment, the analyst presented an itemized depiction of the investigation including the destinations and approach (survey) of the investigation to the service of arranging/Central Statistical Organization),

- planning /Central Statistical Organization), obtained conduct the study from:
- The Ministry of Health permission on the research topic and confirm the urgent need for it.
- Ministry of Planning and Development Cooperation/Central Statistical Organization Technique and Information (Appendix A).
- Kirkuk Direction of Health(Appendix B)
- The First Kirkuk Sector(Appendix C)
- The Second Kirkuk Sector(Appendix D)

**Setting of the Study:** The study has will be conducted at Al-Askary Primary Health Care Centers in Kirkuk City

**Inclusion criteria:** Pregnant women attending follow-up visits who had initiated their first visit at the clinic

**3.5. Steps of the Study:** For an application of an on pregnant women visits centers the following steps were carried out

**Preliminary Phase:** Closed-end questions were used as primary test for exploration of pregnant women needs regarding knowledge of Antenatal care during Pregnancy at Primary Health Care Centers. The objective of the preliminary assessment is to determine the pregnant women needs for educational program. Study the assessment of the knowledge.

### RESULTS

**Elementary Parameters:** The Table 1 demonstrates that the highest percentage of both study groups 36% respectively were at age group 25-29 years, 30% of study group were institute were secondary school graduate, regarding occupation . group the highest percentage 66% respectively were house wife, monthly income for group 58% respectively were barely sufficient according to the participant's point of view , and percentage 78% for group were from urban areas and regarding the smoking status majoring of group 72% respectively were non-smokers. Results shows that studied groups recorded no significant differences at  $P>0.05$ , and that is reflecting validity of the selected subjects due to their similarity status in light of that variables.

Table 2 demonstrates that the highest percentage of study group 54% respectively were at age at marriage 20-24 years, 42% of study group period of marriage. group the highest percentage 68% respectively were menstruation, number of pregnancy for group 52% and same percentage 88% for group were from number of abortion and regarding the para number of baby 58%, were group (48%) respectively period between pregnant, while type of delivery for group percentage 56%. Heredity disease study group 86%, while health problem percentage of group 78% and results shows that no significant differences are accounted at  $P>0.05$ , and that is reflecting validity of the selection subjects due to their similarity status in light of that variables.

**Table 1:** Distribution of the study groups according to (SDCv.) with comparisons significant

SDCv.	Classes	Sample		C.S. (*) P-value
		No.	%	
Age Groups Yrs.	< 20	4	8	C.C.=0.071 P=0.973 (NS)
	20 _ 24	7	14	
	25 _ 29	18	36	
	30 _ 34	16	32	
	35 _ 40	5	10	
	Total	50	100	
Level of Education	Read & write	8	16	C.C.=0.251 P=0.150 (NS)
	Primary	9	18	
	Intermedi ate	13	26	
	Secondary	5	10	
	Institute and college graduate	15	30	
	Total	50	100	
Occupation	Housewife	33	66	C.C.=0.184 P=0.172 (NS)
	Student	6	12	
	Employee	11	22	
	Total	50	100	
Monthly Income	Insufficient	14	28	C.C.=0.067 P=0.797 (NS)
	Barely sufficient	29	58	
	Sufficient	7	14	
	Total	50	100	
Residential Area	Urban	39	78	C.C.=0.000 P=1.000 (NS)
	Rural	11	22	
	Total	50	100	
Smoking Status	Non	36	72	C.C.=0.143 P=0.148 (NS)
	Passive	14	28	
	Total	50	100	

(\*) NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test.

**Table 2:** Distribution of the study groups according to (RCv.) with comparisons significant.

RCv.	Classes	Sample		C.S. (*) P-value
		No.	%	
Age at marriage Yrs.	< 20	3	6	C.C.=0.136 P=0.596 (NS)
	20 _ 24	27	54	
	25 _ 29	10	20	
	30 _ 35	10	20	
	Total	50	100	
Period of marriage	1 _ 2	21	42	C.C.=0.050 P=0.968 (NS)
	3 _ 4	14	28	
	5 _ 6	4	8	
	7 _ 8	11	22	
	Total	50	100	
Menstruation	Irregular	16	32	C.C.=0.154 P=0.118 (NS)
	Regular	34	68	
	Total	50	100	

No. of pregnancies	One	26	52	C.C.=0.081 P=0.882 (NS)
	Two	11	22	
	Three	7	14	
	Four and more	6	12	
	Total	50	100	
No. of Abortion	Non	44	88	C.C.=0.067 P=0.505 (NS)
	Yes	6	12	
	Total	50	100	
Para (no. of babies)	One	29	58	C.C.=0.139 P=0.742 (NS)
	Two	11	22	
	Three	7	14	
	Four	2	4	
	Five	1	2	
	Total	50	100	
Period between pregnant	Non	14	28	C.C.=0.213 P=0.096 (NS)
	One	24	48	
	Two	12	24	
	Total	50	100	
Type of delivery	Non	14	28	C.C.=0.057 P=0.663 (NS)
	NVD	28	56	
	Caesarean	8	16	
	Total	50	100	
Hereditary disease	Non	48	96	C.C.=0.059 P=0.558 (NS)
	Yes	2	4	
	Total	50	100	
Health problem	Non	39	78	C.C.=0.102 P=0.789 (NS)
	Anemia	9	18	
	D.M.	1	2	
	Allergy	1	2	
	Total	50	100	

(\*) HS: Highly Sig. at P<0.01; S: Sig. at P<0.05; NS: Non Sig. at P>0.05; Testing based on a contingency coefficient (C.C.) test.

**Knowledge and Practices regarding ANC in pre-test of time:** Table 3 Knowledge items were distributed among 9 sub domains, such that (Pregnant Care, Signs and Symptoms of Pregnant, Checkup, Vaccinations, Life Style : "Nutrition – Drugs – Sports & Comfortable", Persecution during pregnant, Risk Signs during pregnant, Breast Feeding and Delivery), and contents of 41 items, using binary dichotomous scoring scales for multiple choice questions (MCQ) concerning knowledge items by transforming the false choice, and don't know to zero scale, while transforming the correct choice, to one scale. Respect to subjects of studied (knowledge regarding care during pregnancy) items for comparing between studied groups, results shows that no significant differences at P>0.05 were accounted, and that is reflecting validity of the selection subjects due to their similarity status in light of that items.

**Table 3:** Distribution of the study groups according to (Knowledge Regarding ANC) items at the pretest (Before applying an educational program) with comparisons significant

Sub Domains	Knowledge of ANC	Groups		Study			C.S. P-value	
		Resp.	No.	%	MS	SD		RS%
Antenatal Care	1- Is there need of visiting pregnant women to the pregnant' care center?	False	40	80	0.20	0.4	20	P=1.000 NS
		True	10	20				
	2- What do you knowing about pregnant care?	False	38	76	0.24	0.43	24	P=0.817 NS
		True	12	24				
	3- What are the goals of caring for pregnant women?	False	24	48	0.62	0.49	62	P=0.841 NS
		True	26	52				
	4- Why caring for pregnant woman is important?	False	41	82	0.18	0.39	18	P=1.000 NS
		True	9	18				
	5- Is pregnancy follow up important?	False	24	48	0.52	0.5	52	P=1.000 NS
		True	26	52				
	6- Insufficient care for pregnant women means:	False	39	78	0.22	0.42	22	P=0.488 NS
		True	11	22				
Signs and Symptoms of Pregnant	1- Pregnancy is:	False	32	64	0.36	0.48	36	P=0.391 NS
		True	18	36				
	2- Menstrual cycle interruption mean pregnancy	False	42	84	0.16	0.37	16	P=0.790 NS
		True	8	16				
	3-The mother feels 1 fetal movement in	False	31	62	0.38	0.49	38	P=0.542 NS
		True	19	38				
	4- Vaginal secretion during pregnancy	False	43	86	0.14	0.35	14	P=0.766 NS
		True	7	14				
	5- Vaginal infections during pregnancy can harm the fetus	False	40	80	0.14	0.35	14	P=0.799 NS
		True	10	20				
Check up	1- Clinical examination of the first visit is important to:	False	39	78	0.22	0.42	22	P=0.640 NS
		True	11	22				
	2- The benefits of U/S during the first semester	False	43	86	0.14	0.35	14	P=0.202 NS
		True	7	14				
	3- Are laboratory tests during pregnancy important	False	28	56	0.44	0.50	44	P=1.000 NS
		True	22	44				
	4- Diabetics screening is done for	False	24	48	0.52	0.5	52	P=1.000 NS
		True	26	52				
	5- What is importance of determining fetal status	False	33	66	0.34	0.48	34	P=0.832 NS
		True	17	34				
	6- Pregnancy screening during 9 month is important to determine the type of birth	False	37	74	0.26	0.44	26	P=0.220 NS
		True	13	26				
Vaccinations	1- Tetanus vaccine is:	False	41	82	0.18	0.39	18	P=0.235 NS
		True	9	18				
	2- Vaccination during pregnancy are:	False	35	70	0.3	0.46	30	P=0.656 NS
		True	15	30				

3- Vaccination with tetanus during:	False	35	70	0.3	0.46	30	P=0.523 NS		
	True	15	30						
4-The first dose of tetanus during:	False	32	64	0.36	0.48	36	P=0.680 NS		
	True	18	36						
Life Style	Nutrition's	1- The importance of protein	False	30	60	0.40	0.49	40	P=0.295 NS
		True	20	40					
		2- Nutrition during pregnancy depends	False	30	60	0.40	0.49	40	P=0.534 NS
		True	20	40					
	3- Good nutrition for pregnant women depends on	False	30	60	0.40	0.49	40	P=0.205 NS	
	True	20	40						
	4- The need for some minerals is increasing	False	29	58	0.42	0.5	42	P=0.316 NS	
	True	21	42						
	Drugs	1- Is iron and folic acid important	False	24	48	0.52	0.5	52	P=0.688 NS
		True	26	52					
		2- Do you knowing the types of drugs that cause harm to the fetus	False	24	48	0.52	0.5	52	P=0.229 NS
	true	26	52						
	Sports & Comfortable	3- The most important vitamins. to be taken during pregnancy	False	32	64	0.36	0.48	36	P=0.680 NS
		true	18	36					
		are the importance of sports during pregnancy ?	False	37	74	0.26	0.44	26	P=0.817 NS
true	13	26							
Minor disorder during pregnant	2-Do you walk during the 9 month of pregnant ?	False	29	58	0.42	0.5	42	P=0.410 NS	
	true	21	42						
	3- Do exercises facilitate of birth ?	False	28	56	0.44	0.5	44	P=0.230 NS	
true	22	44							
Risk Signs during pregnant	1- Intermittent urine means ?	False	26	52	0.48	0.5	48	P=1.000 NS	
	true	24	48						
	2-Fatigue and stress during the early stages of pregnancy as a result	False	35	70	0.30	0.46	30	P=0.523 NS	
true	15	30							
Breast Feeding	3- Light discomfort able during the fir pregnancy period resulted by :	False	34	68	0.32	0.47	32	P=0.509 NS	
	true	16	32						
	1- Is the age of more than 35 y considered a danger to the fetus	False	45	90	0.10	0.3	10	P=0.538 NS	
true	5	10							
Breast Feeding	2- Danger signs are :	False	31	62	0.38	0.49	38	P=1.000 NS	
	true	19	38						
Breast Feeding	3- Complications of diabetes on pregnancy	False	28	56	0.44	0.5	44	P=0.685 NS	
	true	22	44						
Breast Feeding	1- Breast - Feeding benefits the child to gain immunity ?	False	16	32	0.68	0.47	68	P=0.300 NS	
	true	34	68						
Breast Feeding	2- Dose Breast - Feeding keep mother healthy?	False	33	66	0.38	0.49	38	P=0.517 NS	
	true	17	34						
Delivery	1- Dose any uterine contraction lead to birth?	False	32	64	0.36	0.48	36	P=0.123 NS	
	true	18	36						

2- Is bladder discharge necessary to delivery?	False	35	70	0.36	0.48	36	P=0.826 NS
	true	15	30				

(\*) NS: Non Sig. at  $P>0.05$ ; Testing based on a contingency coefficient (C.C.) test.

## DISCUSSION

The consequences of present investigation show a high connection, the connection relationship between financial conditions and the ANC and conveyance care. Normal period of ladies in this examination between 25-29 years and percent reach to 36%, this might be on the grounds that this is the age at which most ladies are hitched and begin to conceive an offspring. In an investigation directed by Rozliza and Muhamad (2011) dominant part of the respondents 46.2% were from age bunch 20-multi year. Study directed by Shirin *et al.*, (2011) mean time of ladies was  $33.5 \pm 10.4$  years. In study directed by Alam *et al.*, (2005) the mean time of ladies were  $29.57 \pm 7.1$  years. That is in concurrence with present examination. There are outstanding likenesses between areas in regards to factors that influence antenatal consideration administration use, particularly maternal training and urban home. The discoveries of this examination are reliable with an essential report on the investigation of national study information in seven commencement nations and a deliberate audit done in creating nations (Mustafa and Mukhtar 2015; Saad-Haddad *et al.*, 2016). These examinations uncovered that living arrangement and higher instructive status was related with take-up of antenatal consideration. Different investigations revealed that ladies with essential or higher instructive levels have a more noteworthy certainty to take activities in regards to their very own wellbeing and they have mindfulness on bit of leeway of using wellbeing administrations contrasted with ladies who had no training (Tiruneh *et al.*, 2017). In term of occupation, month to month pay and smoking status, 66%, 58% and 72% of pregnant ladies are house wife, scarcely adequate and non-smoking individually. Data on these conditions was gathered to see if it was related with inception of ANC. In a WHO report and methodical survey led in creating nations, it was discovered that ladies with a high salary and way of life may have better access to broad communications, which builds familiarity with use of antenatal consideration (Simkhada *et al.*,

2008). Term of Residential Area, 78% of pregnant ladies are urban. In the deliberate survey, it was additionally shown that urban ladies utilized more antenatal consideration administrations than ladies in provincial territories (Afulani 2015). No affiliation was found in this examination between past obstetric history and commencement of ANC. This might be on the grounds that the ladies who had encountered intricacies were oblivious of the peril these confusions may cause to their wellbeing and that of the unborn child. Second, barely any ladies in this examination had encountered such intricacies (therapeutic issues, for example, diabetes and hypertension, Hereditary infection, No. of Abortion, no. of children and Cesarean segment) bringing about them having no impact on the outcomes. This investigation along these lines planned to survey the present status of information on pregnant ladies about peril signs and indications during pregnancy. Concerning the general information complete score level in regards to peril signs and side effects during pregnancy, the discoveries of the present investigation uncovered that about in excess of 90% of the examination test was the degree of information is inadmissible (low) about threat signs and side effects during pregnancy. This discovering is in concurrence with Rashad and Essa (2010) in Egypt, Okura *et al.*, (2012) in Jordan. The after effects of the present investigation demonstrated absence of information about anti-bodies, their sorts and their job during and after pregnancy. the discoveries of the present investigation uncovered that about in excess of 50% of the examination test was the degree of information is unsuitable (low) about Vaccines, this rate is higher when contrasted with the examination done in Umuahia Nigeria (half) (Nwokeukwu *et al.*, 2014), Ankara Turk (27.8%) (Maral *et al.*, 2011). Nourishment during pregnancy majorly affects the result of pregnancy and licensed as a significant determinant for a solid and effective pregnancy including the deep rooted strength of group of people yet to come (Han *et al.*, 2011; Adikari *et al.*, 2016). In spite of the fact that

nourishment is the admission of nourishment vital for ideal wellbeing, a few examinations have uncovered that lacking maternal sustenance could prompt ailing health which causes poor pregnancy results, for example, fetal development disappointment, low birth weight, pre-term birth, pre-birth and baby mortality and dreariness (Abu-Saad and Fraser 2010). In present examination, the greater part of the antenatal moms had great information on the significance of maternal games during pregnancy. In an audit on practice in pregnancy found advanced education and pay as indicators of higher exercise support during pregnancy (Gaston and Cramp 2010). Then again, bosom bolstering and its advantages for a youngster were high level of pregnant ladies in this investigation have conceded to the significance of breastfeeding by upgrading the invulnerability of the kid and improve maternal wellbeing. The latest logical proof shows that selective breast feeding (just breast milk, no nourishment or water aside from nutrients and drugs) for the initial a half year is related with the best assurance against significant medical issues for the two moms and new-born children (Wight *et al.*, 2009).

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