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THE EFFECT OF ANTENATAL CARE ON THE HEALTH OF PREGNANT WOMEN (STUDY IN THE PRIMARY HEALTH CENTER IN A NEW BAQUBAH CITY)

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ABSTRACT

The study group consisted of a sample of files of pregnant women attending for antenatal care during 1993 and 1994 years. This study started at (1) of July and ended at first of September 1995 year. No. of sample were (200) files. Detailed information sheet (backgrounds factors, sociocultural factors and medical factors) was designed together the required information. We found in this study that women whose age was between (15 – 29 years) were the most frequent attenders of the antenatal clinic. As regards parity, Nulliparus was found to be the most frequent attenders at the antenatal clinic were most frequently read / write and followed by primary school graduates (45%) and (21%) respectively. Amount of prenatal care received can be determined by 2 parameters:- (I) Trimester of gestational when A.N.C was commenced. In this study (71.5%) of women attended antenatal clinic during the first trimester, and (23.5%) of women attended A.N.C at third trimester. (II) Second parameter is the No. of antenatal visits. Most of women attending the A.N. clinic had 7 – 10 antenatal visit (51%).

KEYWORDS: antenatal care, Nulliparus, prenatal, A.N.C.

INTRODUCTION

Women are important to P.H.C in three ways:-

1. As direct beneficiaries.
2. As mother and family members.
3. And as front line health workers outside home.

All these roles especially the first must be imphesized inorder to reduce morbidity and mortality in developing countries. Women carry much of the responsibility for world producing in the family, on the farm, in both traditional and modern – sector industries and in commerce.

An estimated 18 to 30% of the worlds families are solely supported by women (Uncief – 1986).

Maternal health is a prime determinant of infant health which are so interlinked that the promotion of one entails consideration of promotion of the other (W.H.O – 1991).

AIMS OF THE STUDY

The aims of this study is; to asses the effect of antenatal care on the health of pregnant women attending the primary health center in a new Baqubah city and to study activities of this center.

And to relate all these findings to certain demografic variables in the women studied.

LITERATURE REVIEW

The child and mother welfare movement started in Europe at the end of the ninteenth century at the beginning of the industrial revolution (Jawadi, 1973).

In France infant consultation clinics were established in (1892).

In Belgium another different approach to the problem was made, efforts directed towards educating the mothers. in general aspect relating to child care (Jawadi, 1973).

In England, women volunteers tried to save life of pregnant women by house visits (Jawadi, 1973).

The first antenal clinic in British was opened in 1910.

Factors affecting attendants of A.N. care

- Background factors like age, race, marital status and parity.
- Social class of the family and their income.
- Occupation of mothers and husband.

Back ground factor

A) Age:- Non registered mothers in A.N.C. tended to be older than registered mothers (Klein, 1971)
B) Parity:- Nullipara attend early as a result of general anxeity about the unknown and to ensure hospital bed.

Sociocultural factors

A- Education

Women of higher education level have more examination and intervention Hubert et at., (1987)

B- Employment status

The employment status acts as an index of educational status i.e are more a ware of the desirability of early attendance (Kaliszas and Kidd, 1981).

C- Income and medical insurance

Moore et at., (1986) found that there is a markdly higher finaicial cost of delivering a patient without prenatal care when compared with that of the patients given care.

D- Attitude towards health professionals

Gardiner (1969) found that an important factor contributing to in adequancy of antepartum visit in some of women was not the lack of quality of medical care, but the lack, of understanding and appreciation on the part of health team of coexistance of major personal and social problem which the women considers of great current importance than any problem relating to the pregnancy.

Structural factors

A- Accessibility to health service.
B- Relation of distance to missed visits.

Russel, (1977) ⟶ There is some evidence supporting this hypothesis.

Amount and timing of antenatal car

These are determined by the month of the gestation that care begins, No. of visits and length of gestation.

The frequency of visits increased with increasing educational level, residence in an urban environment, presence of adverse outcome of previous pregnancy, and early occurance of complication (Hubret et al., 1987).

Late attendance for antenatal care is more frequent among working class women and at the extremes of maternal age and parity. it is also associated with distance from the clinic.

Responsibilities of M.C.H service in health center and Intra structures

Monitoring the body weight of all pregnant women to assess gain in pregnant women and adopting appropriate measures whenever necessary:

1. For mother.
2. Re organization of health care service.

a) Strengthening MCH in P.H.C.
b) Active school health services, and school health education programms.
c) Provision of food supplements.
d) Tetanus Toxoid inoculation as routine percaution for all pregnant women.
e) Access to essential obstetrical care at all levels.

Basic maternal helth services

1- Family planning education.
2- Nutrition education.
3- Home gardens.
4- Tetanus immunization.
5- Iodine injection (for goiter).

Screening and the at – risk concept

Screening pregnant women for the problems is an important step towords treating and preventing those problems.

Screening required identifying pregnant women and list of risk factors, trained personnel to screen, record system.

High risk women would need more frequent contacts.

Typical risk factors: - (Uncief, 1984)

1. Weight of 38 kg or less before pregnancy.
2. Weight of 42 or less at 34th week of pregnancy.
3. Height of less than 145 cm.
4. Sever pallor.
5. Child from previous delivery who weighed less than 2kg at birth.
6. High blood pressure.
7. Age before 18 or about 30 at first pregnancy.
8. Age 35 years or older at the time of pregnancy.
9. History of abortion / or stillbirth.
10. Fifth or lator child.
11. History of bleeding during pregnancy.
12. Possible twins.
13. Previous C/S, and malpresentation.
14. Hepatitis.

Identification of the patient at risk of preterm labour

All preterm labour happen in nulliporous patient (Arias,1984).

Factors associated with preterm labour and delivery are the following

1- Maternal characteristic

a) Weight of mother before pregnancy if less than 50kg have 3 times as many low birth weight infant, as a mother who weighs more than 57 kg before pregnancy (Brown et al, 1981).
b) Smoking during pregnancy. (twice frequent) Rebort and Meyerm, 1978).
c) Maternal age.

15.8% of small babies are born to mothers whose age is under 15 years (Arias, 1984).

2- Obstetric factors
a- Maternal weight gain.
b- Previous spontaeous or induced abortion especially mid trimester.
c- Multiple pregnancy.
d- History of stillbirth or neoratal death in prior pregnancy.
3- Maternal disease. e.g. eclampsia, preclampsia, chronic renal disease, chronic hypertension associated with low birth weight.
4- Fetal problems and placental factors. also cause low birth weight.

Nutrition during pregnancy
Health education about nutrition is very important thing so health education of the pregnant women who attend antenatal clinic about nutrition is a must.

Over weight is associated freqnently with perinatal problems as prolonged labour, post partum haemorrhage and infection and poor perinatal out come are all more frequent in obese pregnant patient.

METERIALS AND METHODS

This study was carried out at the primary health center of a new Baqubah city, Training center on the files of 200 pregnant women.

This study started from first of July to first of September 1995.

The study group consisted of women who received antenatal care during the years 1993 – 1994. Their records were selected from the record department in the primary health center in a new Baqubah city randomaly in a systematic way. (Sample, frame).

A detailed information sheet including information on the followings was used during the study.
1. Age (years): The age of pregnant women was subdivided into 6 groups with 5 years intervals.
2. Residence.
3. Educational status of mothers and their husbands.
4. Past obstetric history.
5. Parity of pregnant women who attended antenatal clinic.

Information about attending antenatal clinic was taken considering the following parameters:
1. No. of antenatal visits.
2. Uterus size at first antenatal visit was subdivided as first trimester, second trimester and third trimester.
3. Weight gain during antenatal care.
4. Infomation about vaccination of pregnant women.
5. Information about hematinic supplementations.
6. Complete information about investigations such as blood group, G.U.E, random blood suger for D.M. and V.D.R.L for syphilis.
7. Blood prassure during antenatal care.

RESULTS

Master table (1)
Shows that women whose age was between 15 – 29 years were the most frequent attenders.

Table (2)
Shows the relationship between age of pregnant women and trimester of first antenatal visits.

We can see that the younger women (20 – 24 y.) visited the antenatal care generally earlier than older women.

Table (3)
Shows the relationship between parity and No. of antenatal visits of pregnant women attending antenatal clinic.

We see that the No. of antenatal visit appeared to be higher in (7 – 10) visits in the primiparous women.

Table (4)
Shows the relationship between age of pregnant women and No. of antenatal visit.

- The younger age group $<$ 20 years a higher percentage of mothers was detected in less than 3 visits.
- Higher percentage of 3 - 6 visits was detected in (21 – 24) years pregnant women. and also higher precentage of 7 – 10 visits was detected in pregnant women with age of (21 – 24) years. (23.52%).

Table 1: Master table illustrating the sample description of all variables included in our study (in precentage).

Age (yrs)	15–19 15–19 15–19 15–19 15–19 15–19 21 21 21 21 21 21	Total 200
Parity	0 1–3 4 –6 7+ 55 24 13 4	Total 200
Education of mother	illuturate Read write Primary Intermediiat and 2° College 10 45 21 14 10	Total 200
Education of father	4 40 14 17 25	200
Weight gain /m.	No gain 6kg 7 –10kg 11–13kg 14kg 10 20.5 34.5 14.5 15.5	Total 200
No. of A. N. C.	2 visits 3 0 6 7–10 11+ 30.5% 52% 15.5% 1%	Total 200
T.T vaccination of preg.women	ist+2nd dose of T.T 3rd dose of vaccin 1st does only No vaccin 55% 6% 15% 24%	Total 200
Hematin supplementation	Tonie No supplementation 100% 0	
Postnatal checkup	Postnatal checking No checking 57% 43%	

Table 2: Relationship between age of pregnant women and trimster of first antenatal visit.

Age	No. % first trimester	No. % Second trimester	No. % Tird trimester	Total
15 – 19 years	32 22.37	8 17.02	4 40	44
20 – 24 years	45 31.46	19 40.42	2 20	66
25 – 29 years	34 23.77	9 1.91	2 20	45
30 – 34 years	17 11.88	5 1.06	1 10	23
35 – 39 years	12 8.39	6 1.27	1 10	19
40 +	3 2.09	0	0	23
	143 100	47 100	10 100	200

Table 3: Relationship between parity and number of antenatal visits of pregnant women attending antenatal clinic.

parity	< 3 No. %	3 - 6 No. %	7 - 10 No. %	11 + No. %	Total
0	28 46.6	63 61.76	18 54.5	0	109
1 - 3	19 31.6	25 24.5	4 12.1	1 2.0	49
4 - 6	10 31.6	10 9.8	6 18.18	0	26
7 +	3 5.2	4 3.92	5 15.15	4 25	16
Total	60 100	102 100	33 100	5	200

Table 4: Relationship between age of pregnant women and No. of antenatal visit.

Number of antenatal Visit					
Age	< 3 No. %	3 - 6 No. %	7 - 10 No. %	11 + No. %	Total
15 - 19	18 31.03	26 24.52	6 17.64	1 1.96	51
21 - 24	15 25.86	30 28.30	8 23.52	1 1.85	54
25 - 29	14 24.13	22 20.75	7 20.58	0	43
30 - 34	5 8.62	10 9.43	5 14.70	0	20
35 - 39	4 6.89	10 9.43	3 8.82	0	17
40 +	2 3.44	8 7.54	5 14.70	0	15
	58 100	106 100	34 100	2	200

DISCUSSION

This study was undertaken to see the effect of antenatal care on the health of pregnant women, and also we classify here the factors that may be related with receiving antenatal care into four main classes, these are:

- Background factors.
- Socio cultural factors.
- Medical factors.
- Amount of A.N. care received.

1) Background Factors

Age: age of pregnant women attending the A.N. clinic.

Table (4) shows that younger women tend to reveive adequate ANC more frequently than older women.

This result is compatible with the standies conducted by Klein, 1971, Poland et al., 1987 who suggested that younger women attended A.N. clinic more frequently than older women.

Parity: In this study we see that primigravida had higher precentage of antenatal visit than multipara. So parity appeared to be related to the No. of antenatal visits, were more prone to ask for antenatal care than those who had multiple previous pregnancies.

The result of this study are supported by Kalizer and Kidd, 1981 who found that missed visits to antenatal clinic is at minimum in the multipara as well as the finding of Polland et al., 1987 who mentioned that there was significant difference amoung different parity group with better care receive by those with lower parity.

Higher No. of visits mean that the women is better motivate and take more iron supplementations more than those with low visits.

2) Sociocultural Factors

Education: In this study we see mothers of lower educational levels were most likely to have visited the primary health center in a new Baqubah city, than mothers with high educatinal status because the last more likely to have received care from private physician. In this study 45% of pregnant women who attend the center.

3) Medical Factors

Previous obstetrical history:

1. Women with a bad obstetrical history had better attendeance to antenatal clinic. These results agreement with those of bruce et al., 1979 study and Saleem (1981).
2. Weight gain during antenatal care:

In this study high frequency of suboptimal weight gain (34.5%), 7 – 10kg this frequency may be due to low socioeconomic status and crowded area and to short spacing between pregnancies, This leads to maternal depletion where no time is available to recover adequatly from last pregnancy (Unicef, 1984).

4) Amount of prenatal care received

1. Month of gestational age that care begins can determine the amount of pregnatal care received, (Kesses et al., 1973).

Some women beleive that when the fetus moved they felt alright and didn't need to seek antenatal care. (Poland et al. 1987).

2. Number of antenatal visits:
This No. varies from 1 -14 visits, (Hubret, 1987).

The No. of A.N. visits increases with higher education, residance in urban environment, presence of adverse out come of previous pregnancy and early occurance of complication. (Hubert, et al., 1987).

5) Others

1. Vaccination**:** 95% coverage with tetanus toxoid is effective in preventing maternal and neonatal tetanus if given in 2 doses with boosters every 5 or 10 years. (Unicef, 1984).

The one million infant deaths each year caused by tetanus neonatorum could be prevented through proper lmmunization of the mother (before or during pregnancy) or care with hygiene during or after birth, (Unicef, 1984 / 1986).

This sample appeared to have a coverage with TT in good precentage.

1. Hematinic supplementations

Our study showes that 100% of women studied took hematime supplemestation. In order to reduce, the incidence of anemia.

Postnatal check up: 57% postnatal checking in this study.

CONCLUSION

This study showed that many factors have an influence on giving antenatal care for pregnat women.

These factors play very important role in this process and we study the effect of antenatal care on the health of pregrant women.

1. The study showed that education of women play role in the quality of services. age of pregnant women also play a role in this respect.
2. Not all the women attending antenatal clinic for postnatal checking.
3. Hematinic supplementation is very good 100%. so they were all treated to prevent anaemia during pregnancy.
4. The quality of the service extended by the primary health center in a new Baqubah city was a good center. i.e 2/3 of women had antenatal visits in the first trimester of pregnancy.

RECOMMENDATIONS

I suggest the following recommendations:-

1. Providing family planning services is an important thing to overcome the problem of unwanted pregnancy.
2. Health education for prenatal care, regular attendance of pregnant women to maternal and child health care center.
3. We must encourage adequacy of antenatal care by primary health care.
4. The record system should be done in scientific way in order to have better vital statistics.
5. There should be contineous research and evalution of antenatal care services.

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