

## PRENATAL CARE AND MATERNAL AGE, EDUCATION AND REPRODUCTIVE BEHAVIOUR

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### ABSTRACT

Reproductive behavior of 1525 pregnant woman were studied in the time of termination of pregnancy in relation to maternal age, education, prenatal care and the number of previous pregnancies.

The results show that the frequency of maternal attendance at the centers of prenatal care is significantly related to maternal education. And the total pregnancies per woman is inversely correlated with maternal education.

The kind of termination of pregnancy which resulted in livebirths or abortion have significant relation to maternal age such a way that the highest percentage of abortion observed in the age group of 15-19; And the highest number of natural deliveries has been in the age group of 20-29.

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## INTRODUCTION

Pregnancy is a very important stage of development of embryo and fetus and has profound effects on the health and well-being of both the mother, newborn and child.

Many of the various types of growth retardation and mental and physical disabilities of children can be traced to the prenatal period. Moreover, abortions, labor trauma and other inconveniences produced by pregnancy may endanger the health of mother's.

Prenatal Care is one of the major activities that has been accepted as one of the main health indicators around the world.

Since the adoption of the primary Health Care, in Alma Ata in 1978, by the World Health Organization, as the main strategy for achieving Health For All by the year 2000, maternal and Child Health has been incorporated as one of the main sectors of the PHC strategy, and some of the Global health indicators developed in 1981 are in direct association with this topic.(1)

## MATERIALS AND METHODS

During the summer of 1986, the effects of various factors on the health of mother and child were studied. Data were collected from maternal hospital in Southern Teheran. A total of 1525 mothers who arrived at hospital for termination of their pregnancy(either livebirth, abortion, or stillbirth) were interviewed. This paper

aims to report the effects of maternal age and education, as well as prenatal care and number of previous pregnancies on the reproductive behaviour of the mothers.

## RESULTS AND DISCUSSION

Table 1 and Figure 1 show the relation between maternal education and frequency of visits to prenatal care services. The average number of times that illiterate mother's visited maternal care services was 2.33, whereas for educated mothers it was 4.35. This difference is statistically significant.

Neonatal tetanus is considered to be one of the major killers in this country. Upon WHO's recommendations; which is endorsed by EPI(2) programme in Iran; each mother should receive 2 doses of tetanus toxoid during the seventh and eighth month of pregnancy. Our results show that 85.11% of the mothers interviewed had not received the injections.

Table 2 and Figure 2 show the relation between maternal education and total pregnancies per woman. The mean number of pregnancies for illiterate mothers is calculated to be 4.0 whereas it is 1.97 for educated mothers. This difference is statistically significant. This observation is another proof for a generally observed and well reported fact that total number of pregnancies is inversely correlated with maternal education (3).

In Table 3, the result of the pregnancies reported,

show 90.8% livebirths. Moreover, for those aborted, the highest percentage 13.6% was seen for mothers in the age groups of 15-19 years.

Table 4 shows the data on 140 cases of abortions grouped by gestational age in weeks. About 50% of all abortions occurred during the first 8 weeks, and by week twelve, 75% of all abortions had occurred. Only 5.7% of the abortions are seen after week 16 which is in agreement with other reports (5).

Table 5 reveals the effect of maternal age on the kind of termination of pregnancies. According to this table the highest number of natural deliveries were seen among young mothers (20-29 years of age) whereas the highest percentage of cesarean section was observed among mothers 40 years and older. This observation is statistically significant.

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Table 1 - Number of Maternal Visits to Prenatal Care Services According to Education.

No. of Visits	Maternal Education	Illiterate	Preliminary School	High School and over	Unknown	Total
0	No.	224	74	9	2	309
	%	20.3	24.1	8.6	40.0	20.2
1	No.	151	24	5	0	180
	%	13.6	7.8	4.8	0.0	11.8
2	No.	249	63	15	0	327
	%	22.5	20.5	14.3	0.0	21.4
3	No.	230	36	14	1	281
	%	20.8	11.7	13.2	20.0	18.4
4	No.	156	36	5	1	198
	%	14.0	11.7	4.8	20.0	13.0
5	No.	82	44	27	0	153
	%	7.4	14.2	25.7	0.0	10.0
6	No.	6	17	9	1	33
	%	0.5	5.5	8.6	20.0	2.2
7	No.	2	5	8	0	15
	%	0.2	1.6	7.6	0	1.1
8	No.	2	1	5	0	8
	%	0.2	0.3	4.8	0	0.5
9	No.	2	8	5	0	15
	%	0.2	2.6	4.8	0.0	1.1
10	No.	1	0	3	0	4
	%	0.1	0.0	2.8	0.0	0.2
Unknown	No.	2	0	0	0	2
	%	0.2	0.0	0.0	0.0	0.1
Total	No.	1107	308	105	5	1525
	%	100.0	100.0	100.0	100.0	100.0
	$\bar{X}$	2.23	2.72	4.35	2.60	2.48
	S	1.64	2.25	2.59	2.61	1.93

Maternal education	Illiterate		Preliminary School		High School and over		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
1	124	42.6	112	38.4	52	17.8	3	1.2	291	100
2	188	65.1	75	25.9	24	8.3	2	0.7	289	100
3	218	72.7	66	22.0	16	5.3	0	0.0	300	100
4	147	80.7	29	15.9	06	3.4	0	0.0	182	100
5	150	90.9	12	7.3	3	1.8	0	0.0	165	100
6	116	93.7	5	3.9	3	2.4	0	0.0	127	100
7	74	93.7	5	6.3	0	0.0	0	0.0	79	100
8	44	97.8	1	2.2	0	0.0	0	0.0	45	100
9+	35	97.3	1	2.7	0	0.0	0	0.0	36	100
Unknown	8	72.7	2	18.2	1	9.1	0	0.0	11	100
Total	1107	72.6	308	20.2	105	6.9	5	0.3	1525	100
$\bar{X}$	4.00		2.35		1.97		1.40		3.51	
S	2.12		1.47		1.27		0.55		2.12	

Table 3. The Results of Pregnancies According to Maternal Age

Result of Pregnancies	Live Birth		Abortion		Total	
	No.	%	No.	%	No.	%
Maternal Age (year)						
15 - 19	191	86.4	30	13.6	221	100
20 - 29	917	91.8	82	8.2	999	100
30 - 39	252	90.6	26	9.4	278	100
40 +	23	92.0	2	8.0	25	100
Unknown	2	100.0	0	0.0	2	100
Total	1385	90.8	140	9.2	1525	100

Table 4 - Gestational Age of Pregnancies Resulting in Abortion According to the Maternal Ages

Gestational age (weeks)	5 - 8		9 - 12		13 - 16		17 +		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
15 - 19	12	40.0	8	26.7	8	26.7	2	6.6	30	100
20 - 29	45	54.9	26	31.7	9	11.0	2	2.4	82	100
30 - 39	5	19.3	9	34.6	9	34.6	3	11.5	26	100
40+	1	50.0	0	0.0	0	0.0	1	50.0	2	100
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	000
Total	63	45.0	43	30.7	26	18.5	8	5.8	140	100

Table 5 - Termination of Pregnancy According to Maternal Age

Termination of Pregnancy	Normal Delivery		Cesarean		Other		Total	
	No.	%	No.	%	No.	%	No.	%
15 - 19	156	81.7	13	6.8	22	11.5	191	100
20 - 29	822	89.5	36	3.8	59	6.7	917	100
30 - 39	217	86.1	23	9.1	12	4.8	252	100
40 +	13	56.5	8	34.7	2	8.8	23	100
Unknown	2	100.0	0	0.0	0	0.0	2	100
Total	1210	87.4	80	5.8	95	6.8	1385	100

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