

Socio-demographic Profile of females with Pregnancy wastage

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Abstract: To study the socio-demographic profile of females with pregnancy wastage. A cross sectional study was done in women of age group 20-40yrs in the department of obstetrics and gynaecology in Era's lucknow Medical College Lucknow. The subjects were selected by systematic random sampling. The different types of pregnancy wastage were analyzed according to some variables viz age, literacy, occupation of mother, birth order, birth interval. Result: total of 200 women were covered. Maximum number of women viz., 81.02% were above 35 years of age and minimum viz 54.39% were in 20-24 year age group. Lowest percentage was observed

at 1st order (31.5%) of birth and highest was observed at 4th order (74.5%). Pregnancy wastage according to interval between births maximum wastage was seen at interval of 1 year between birth (48.2%) and > 6 (43.7%) The pregnancy wastage among illiterate women (50.4%) outnumber those among literate women (43.9%). Pregnancy wastage in our set up is mainly due to preventable and treatable risk factors which should be taken care of to prevent the wastage.

Keywords: socio-demographic, pregnancy, wastage, illiterate, preventable

Date of Submission: 20-12-2018

Date of acceptance: 06-01-2019

I. Introduction

Pregnancy wastage includes spontaneous first trimester abortions and still-births, perinatal mortality, early neonatal death. Higher proportion of women experiencing pregnancy wastage in any defined area is considered as a sensitive indicator of maternal health care services. It is a significant public health problem throughout the world especially in the developing countries.

Pregnancy outcome is influenced by hereditary, environmental and bio-social factors like maternal age, inter pregnancy interval, parity, socio-economic factors, education, availability of health services, past obstetrics history etc. Besides that, maternal illnesses like diabetes, hypertension, ante partum haemorrhage, anaemia, infections etc. are common obstetric factors responsible for poor pregnancy outcome⁽¹⁾ Most of these poor outcomes are preventable, in case early recognition of such cases along with remedial measures are instituted in time. Poor pregnancy outcome indicates poor maternal and child health care (MCH). Fertility of women is further affected by the factors like: universality of marriage, lower age at marriage, low level of literacy, poor standard of living, limited use of contraceptives, traditional way of life, caste, religion and preference for a male child, social and cultural factors etc.⁽²⁾

Still-birth is the major contributor towards perinatal wastage. Still-birth rate still continues to be high in India, reported rates ranging from 10.4 to 41.9 per thousand births. Several factors such as socioeconomic status, biological characteristics of the mother and medical care are associated with still-birth and have a complex interrelationship.^(3,4) Pregnancy wastage has a great impact on women's health so a need was felt to conduct the study.

In India, it has been computed that about 6 million abortions take place every year, out of which 4 million are induced and 2 million are spontaneous. Stillbirth rate for developed countries is estimated to be much less i.e., 4.2- 6.8 per 1000 births whereas for developing world, the estimate ranges from 20-32 per 1000 live births⁽⁵⁾

This study was designed to denote the effect of socio-demographic variables on pregnancy wastage.

AIMS & OBJECTIVE:

To find out whether socio-demographic profile of females is a risk factor for pregnancy wastage.

II. Material And Methods

It is a cross sectional study done on women between age group of 20-40 yrs. The women were selected by systematic random sampling and interviewed during their visit to OPD of Era's Lucknow Medical

College. Survey Proforma consisted of questions to ascertain identification of the study subjects. An Interview Schedule included data related to entire reproductive life and outcomes of various pregnancy was collected. Different type of pregnancy wastage were analyzed. Information regarding socio-demographic variables like maternal age, literacy, occupation, place of delivery was collected.

Taking prevalence of pregnancy wastage to be 0.11 from predictive model of reproductive success and failure as shown by Cunningham et al. allowable error as 7.5% and 95% confidence level

Considering marital fertility rate in this age as 5.9 and prevalence of pregnancy wastage as 0.11; mean pregnancy was calculated as 2.8. Thus it was calculated that number of women to be covered for taking 560 pregnancies was 200.

The data thus collected were tabulated and analyzed manually. The study subjects were explained about the purpose and need of the study. Their verbal consent was obtained and confidentiality of the information sought was ensured.

III. Results

A total of 200 women were covered. Maximum number of women viz., 81.02% were above 35 years of age and minimum viz 54.39% were in 20-24 year age group. (Table 1) Observing the nature of curve, a second degree parabola was best fitted Using the formula $y = 1.775x^2 - 7.447x + 52.6$ Where y is the percentage pregnancy wastage and x is age in years $R^2 = 41.6\%$. (Figure 1). Estimated values of the pregnancy wastages are shown in Table 1.

Table 1 No of Wastage according to Mother's Age

Age Group	No of Pregnancies	Abortions		Still Birth		Early Neonatal Death		Total		Expected Pregnancy Wastage (%) ^a
	N	No.	%	No.	%	No.	%	No.	%	
20 - 24 yr	116	44	41.5	3	2.8	6	5.7	53	45.0	54.39
25 - 29 yr	218	85	41.7	12	5.9	9	4.4	106	48.6	59.72
30 - 34 yr	146	46	31.5	3	2.1	13	8.9	62	42.5	68.59
35+ yr	80	33	31.7	4	3.8	6	5.8	42	52.5	81.02
Total	560	208	37.1	22	3.9	34	6.1	263	47.0	

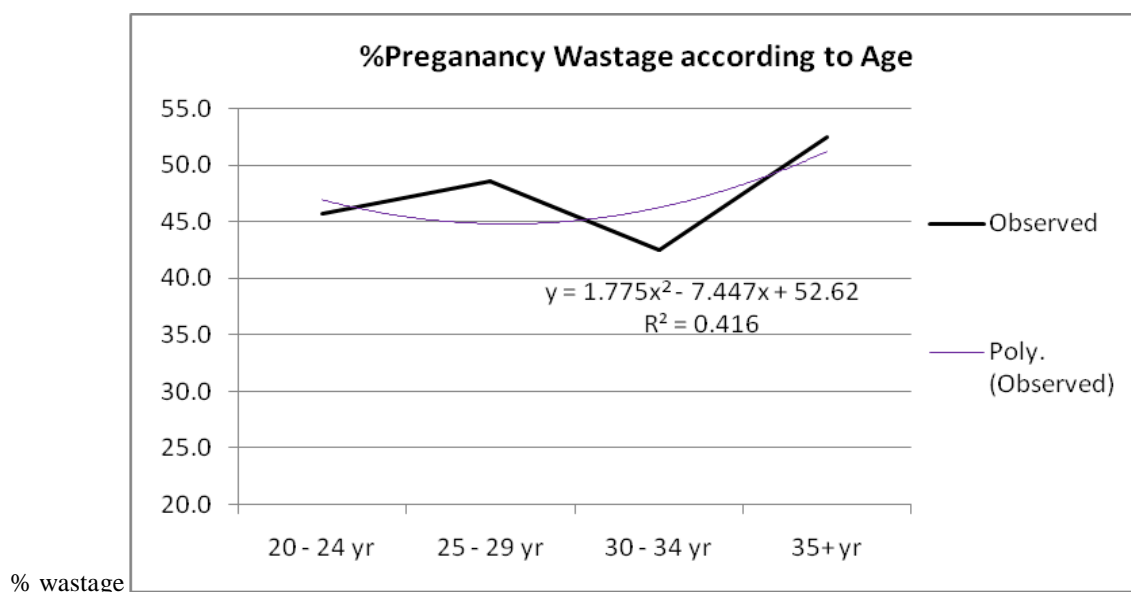


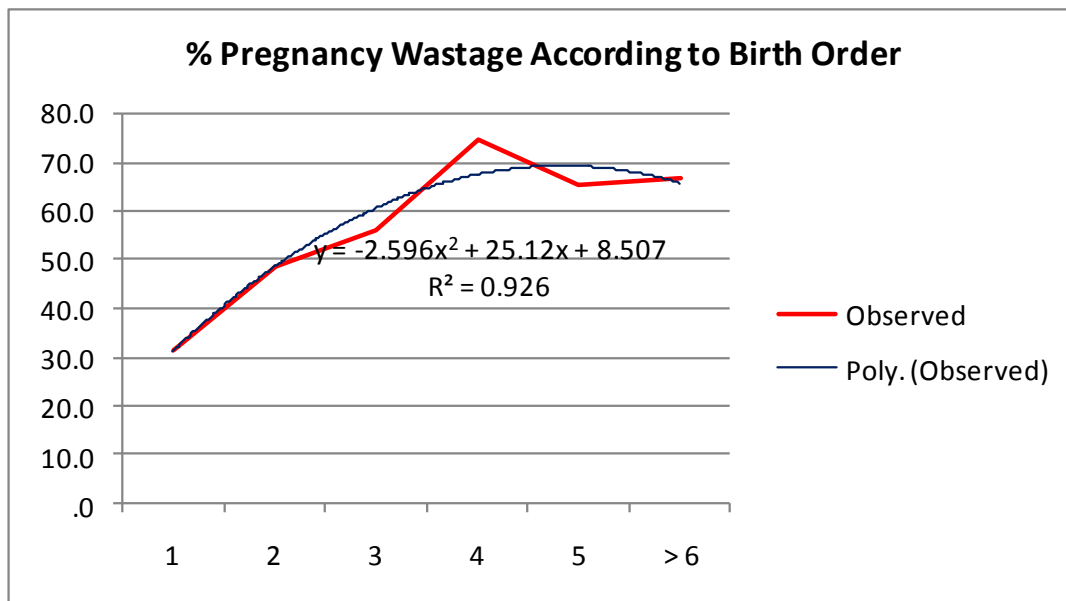
Figure 1

Lowest percentage was observed at 1st order (31.5%) of birth and highest was observed at 4th order (74.5%). It was best fitted using the formula $y = -2.596x^2 + 25.12x + 8.507$

Table 2: No of Wastage according to Birth Order

Birth Order	No of Pregnancies	Abortions		Still Birth		Early Neonatal Death		Total		Expected Pregnancy Wastage in % ^b
	N	No.	%	No.	%	No.	%	No.	%	
I st	200	40	20	11	5.5	12	6	63	31.5	31.0
II nd	179	72	40.2	6	3.3	9	5	87	48.6	48.4
III rd	105	48	45.7	4	3.8	7	6.6	59	56.2	60.5
IV th	47	11	23.4	1	2.12	1	2.12	35	74.5	67.5
V th	20	5	25	0	0	1	5	13	65.0	69.2
VI th or more	9	9	100	0	0	0	0	6	66.7	65.8
Total	560	185		22		30		263	47.0	

%pregnancy wastage



Birth order (figure 2)

Pregnancy wastage according to interval between births maximum wastage was seen at interval of 1 year between birth (48.2%) and > 6 (43.7%) (Table 3)

Table 3: No of Wastage according to Birth Interval

Birth Interval (yrs)	No of Pregnancies	Abortions		Still Birth		Early Neonatal Death		Total	
	N	No.	%	No.	%	No.	%	No.	%
1	110	40	36.3	6	5.4	7	6.36	53	48.2
2	95	22	23.1	3	3.1	4	4.2	29	30.5
3	154	45	29.2	2	1.3	8	5.1	55	35.7
4	50	10	20	1	2	2	4	13	26.0
5	37	11	29.7	2	5.4	1	2.7	14	37.8
6 or more	32	7	21.8	4	12.5	3	9.3	14	43.7
Total excluding 1 st order birth	478	153		18		25			
1 st order birth	82	50		4		5			
Total	560	185		22		30		263	47.0

As far as socio-economic variables were literacy and occupation were considered. Pregnancies wastage among employed mothers were (53.0%) was statistically highly significant (p<0.001) in compared to unemployed mothers (31.8%).

Table 4: No of Wastage according to Employment Status

Employment	No of Pregnancies	Abortions		Still Birth		Early Neonatal Death		Total	
	N	No.	%	No.	%	No.	%	No.	%
Employed	400	169	36.7	18	3.9	25	5.4	212 ^d	53.0
Unemployed	160	39	39.0	4	4.0	8	8.0	51 ^d	31.8
Total	560	208	37.1	22	3.9	33	5.9	263	47.0

^dZ = 4.75, p < 0.0001

The pregnancy wastage among **illiterate** women (50.4%) outnumber those among literate women(43.9%)(table 5)

Table 5: No of Wastage according to Literacy Status

Literacy	No of Pregnancies	Abortions		Still Birth		Early Neonatal Death		Total	
	N	No.	%	No.	%	No.	%	No.	%
Literate	296	97	32.8	13	4.4	20	6.8	130 ^c	43.9
Illiterate	264	111	42.0	9	3.4	13	4.9	133 ^c	50.4
Total	560	208	37.1	22	3.9	33	5.9	263	47.0

^cZ = 0.185, p = 0.853 ns

IV. Discussion

Extremes of age has shown to result in unfavourable outcomes of pregnancy.

In the present study , total pregnancy wastage and abortion were considered individually were higher in women (25-29 yrs):lowest in women between (20-24yrs) and highest among women > 35 yrs. On the other hand, Heisterberg⁽⁶⁾reported

Parity too was seen to be associated with pregnancy wastage .In this study highest pregnancy wastage was seen in 4th birth order.Pregnancies spaced too close are of risk to the mother as well as baby.

It was observed in this study that all the different types of pregnancy wastage occurred more frequently when inter-pregnancy interval was two years or less.

It was observed that total pregnancy wastage was higher among illiterate women than literates.

Employment during pregnancy has often seen to result in adverse outcomes ,including pregnancy loss.

Other authors have made similar observations , parity too was associated with pregnancy wastage by many authors. The general trend shown is that wastage is highest in first pregnancy

V. Conclusion:

Socio demographic factors do play a major role in causing pregnancy wastage.

Most of these factors are preventable and can ensure healthy mother and healthy infant at end of each pregnancy.

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Dr.Deepali Mehra. "Socio-demographic Profile of females with Pregnancy wastage.". IOSR Journal of Dental and Medical Sciences (IOSR-JDMS), vol. 18, no. 1, 2019, pp 66-69.