

STUDY OF 400 GUJARATI WOMEN CONFINED AT FULL-TERM AT SHETH BHAGAT HOSPITAL AND THEIR INFANTS

by

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The author, with the help of a grant from the Gujarat Research Society, carried on investigation at Sheth Bhagat Maternity Hospital, Bombay, on 400 women confined at full-term. The inquiry was made in two directions:

- (i) Finding out the weights and measurements of infants born at full-term.
- (ii) Various aspects of the women's menstruation, marriage, fertility, etc. observed during the study.

Dr. M. L. Biswas investigated, during 1950-51, 480 infants at full-term at the Chittaranjan Seva Sadan Hospital, Calcutta, under the I.C.M. Research grant, regarding their average weight and measurements at birth. His findings were:

Average weight	Average length	Average circumference of head	Average circumference of chest	Lower limb	Trunk
lb.	inch.	inch.	inch.	inch.	inch
5.14	18.88	13.31	13.0	7.85	8.40

The author had analysed weights of 24,655 mature Gujarati infants born in four hospitals in Bombay during a period of 15 years 1928-42 and found that a Gujarati child had

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progressively deteriorated from 6.0 lbs. during first five years to 5 lbs. 11 3/5 oz. during the third five year period. The average for total number was 5 lbs. 13 1/2 oz. The hospitals concerned were alerted and propaganda made amongst women for better care and nourishment.

The investigation was undertaken firstly to note if better antenatal care had influenced the weight of the new-born and secondly to compare them with Dr. Biswas's findings. 400 women and their full-term new-born were studied. The findings of the study are as follows:

Number of confinements—400,
Average age of the mother—25.19 years.

Number of infants born—400,
Male—219, Female—181.

Average weight of the infant—6 lb. Average height—19.4".

Chest at the level of nipples 12.4",
Circumference of head—13.5", Bi-Parietal diameter—10.6 cm., Sub-occipito Bregmatic—12.9 cm. More males were born than females; and average weight, 6 lb., showed improvement over the last. The

weight, height and head measurements compared favourably with those of Dr. Biswas.

Male and female infants were analysed. The female infants were found heavier than the males, though they were smaller in height. Their trunk was broader. In their head measurements they did not differ. Male weight was 5 lb. 14 oz., female 6 lb. 2 oz.

In order to get information on the social, marriage and fertility aspect of middle class Gujarati women and their condition of health and of their first born, information was collected from primiparae. The average age at which a woman confined first time was 19.8 years. Even amongst these there were more male than female infants.

The average was 5 lb. 14 oz., less than that of the average for all. Male infant in the primipara weighed 5 lb. 11½ oz., while a female weighed 6 lb. ½ oz. Measurements of the chest and head were the same.

A primipara was found to deliver a male child at an earlier age than a female child.

The youngest age at which a primipara was confined was 16 years while the oldest was 28 years. The period at which the highest number was confined for the first time ranged from 18 to 20 years. During this period as many as 57% of the primiparae were confined. After the age of 22 years there was a very small number.

Weight, height, chest and head measurements in children born at different ages of primiparae have been analysed. This shows that, on the whole, children born of

mothers over the age of 18 years were heavier and bigger than those born of younger mothers. Number of children borne by each woman was recorded and it was found that the days when it used to be quite common to have mothers with ten, eleven and even more children were gone. Number of mothers having more than eight children was very small, in spite of these women not taking to either late marriages or contraception.

Parity at different ages was studied. Of the 63 primiparae, largest number were confined between 18 and 20 years, the maximum being at the 19th year. There were 3 at the age of 16, and 2 at 23 years. From 24th to 25th year each year registered only one. Fertility remained good upto the age of 30 years, fair up to the 35th year. Beyond that age it was poor. There was no pregnancy earlier than 16th year and later than 41st year.

Menstruation, Marriage and Conception. Majority of the 49 primiparae menstruated for the first time at the age of 13 and 14, earliest was at 12 and latest 18th year. 36 of the 49 married between 14 and 17th year, largest number being in the 17th year. 5 married earlier than 14th year. Two at the 12th year of age, one at 13th. All three of them married to men between 30 and 40 years old. One of them was a second marriage of the husband. Oldest age for first marriage was the 24th year. These showed that early marriages had disappeared practically and they married at ages physiologically ripe—in spite of there being low standard of living and poor education.

It was interesting to know the difference of age between the wife and the husband and its bearing on conception and condition of the infants. The ideal difference between the ages of the wife and husband should be between 5 to 7 years. The importance of this is realised later in life when the wife loses interest in sexual life while husband is still active. In this series 19 girls married with a difference of 4 to 7 years. One married to a husband 2 years older than her. In 13 marriages the difference varied from 8 to 11 years. Disparity was considerable in 4 and amongst 12 difference was big. Two had a difference of 22 years, one of 28 and one of 29 years.

A note was taken to see if disparity in ages had any bearing on conception. It was interesting to find that the usual impression that the greater the disparity in age the less the chances of conception and more difficult the labour, was not borne out. It was also observed that the girls, if they were married to elderly men but at the ripe age of their sexual development, conceived within 3 to 4 years. Details are given in the article. Studying the nature of confinements, it was found that an elderly primipara amongst the Gujarati had no greater hazard in her confinement than a younger one, provided proper

antenatal care was taken. With the results like those found in this study, it was difficult to fix the age of a primipara when she should be called elderly. General condition of the mother and the blood picture of the primiparae were studied. In 1940-41, haematological study of 1000 women registered for confinement at Bhagat Hospital was undertaken. At that time those with R.B.C. count of less than 3.1 mil and 8.29 gms. p.c. haemoglobin were considered as anaemic. But in the present study, count below 4.0 mil R.B.C. and 10.0 gms. p.c. haemoglobin were put down as anaemic.

According to this standard, of 56 women studied, 36 were anaemic. The general blood condition in the present study was found to be much better than the previous analysis.

The author concludes by making a remark that beyond a few general statements applicable to this sample study, it is not proposed to draw conclusions or lay down either averages or standards, because the material in this study was small. It was intended to indicate lines on which this subject should be further studied in various parts of the country on a much wider scale to enable us to arrive at definite conclusions and that the Indian Council of Medical Research should help this kind of study.