

## Research Article

# Knowledge, attitude and preferences of pregnant women towards mode of delivery in a tertiary care center

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### ABSTRACT

**Background:** Delivery mechanism is a spontaneous process and requires no intervention. Advances in medical technology in maternity care have drastically reduced maternal and infant mortality. Aim of the study was to determine maternal knowledge, attitude and preferences of pregnant women towards mode of delivery in a tertiary care center.

**Methods:** This was a prospective study conducted on 100 antenatal women in third trimester who attended the antenatal clinic in Christian Medical College and Hospital, Ludhiana, Punjab from September 2015 to January 2016. The information regarding socio-demographic profile, obstetric history, knowledge and attitude statements towards vaginal and cesarean delivery was collected.

**Results:** Total of 100 women was enrolled in the study. Out of these, majority (47%) had secondary education. Majority of the women (89%) interviewed had positive attitude towards vaginal delivery. High rate of cesarean section was seen in patients with primary and secondary infertility as they thought that babies born by cesarean section are healthier than those delivered by vaginal delivery. The most frequently mentioned source of information about mode of delivery was family and friends. Almost half of women agreed to the statement that vaginal delivery creates a more affectionate mother and baby relationship. Economic factors play an important role in deciding cesarean birth.

**Conclusions:** Majority of pregnant women interviewed in our institution were keen to deliver vaginally, while the remaining women due to lack of knowledge or phobia of vaginal delivery wanted to undergo a cesarean section. Improving women's knowledge about the risks and benefits of different modes of delivery can lead to a positive maternal attitude towards vaginal delivery.

**Keywords:** Knowledge, Attitude, Preferences, Pregnant women, Mode of delivery

### INTRODUCTION

Delivery mechanism is a spontaneous process and requires no intervention. Advances in medical technology in maternity care have drastically reduced maternal and infant mortality. However improper use of these interventions without scientific and legal reasons has converted a normal delivery to surgical and medical phenomenon.<sup>1</sup> An increasing rate of births by cesarean

section is an issue of concern in many countries. Despite the recommendations by WHO that no region in the world is justified to have a cesarean section rate greater than 10-15%, it is the most common obstetrical operation worldwide.<sup>2,3</sup>

The cause of increased cesarean section rate is multi-factorial and decision to deliver by cesarean section depends on a variety of factors including previous

cesarean section, multiple gestation, malpresentation, fetal distress, failure of progress during labor and maternal medical conditions.<sup>4,9</sup>

In developed countries, women often opt for cesarean delivery because of their improved understanding of its role and safety and increasing importance given to the right to self-decision making regarding mode of delivery. However in developing countries, women are reluctant to accept cesarean delivery because of their traditional beliefs and socio-cultural norms. Hence they try to avoid hospital delivery and engage in the services of untrained and unskilled care providers. These women usually report to hospital with life threatening complications and in such situations most of the cesareans are performed as an emergency procedure under suboptimal circumstances.<sup>10</sup>

Main reason of choosing cesarean section by pregnant women is fear and lack of sufficient knowledge about normal vaginal delivery. Although in specific situations cesarean section can prevent serious morbidity and mortality of the fetus and mother, data indicates that in many cases the procedure is not indicated and vaginal delivery could have been achieved safely.<sup>11</sup>

This survey on knowledge, attitude and preferences of women about vaginal and cesarean deliveries may help to define strategies for reducing cesarean birth rates.

## METHODS

This was a prospective study conducted on 100 antenatal women in third trimester who attended the antenatal clinic in Christian Medical College and Hospital, Ludhiana, Punjab from 1<sup>st</sup> September 2015 to 31<sup>st</sup> January 2016. The information regarding socio-demographics, age (years), educational status, occupation, monthly house hold income, obstetric history, previous mode of delivery, knowledge and attitude towards vaginal and cesarean delivery was collected.

A questionnaire was designed for this study consisting of demographic data, obstetric history with 15 statements for evaluating knowledge and 20 statements for evaluation of attitude. 100 women were approached among those who attended the antenatal clinic in their third trimester of pregnancy.

The questionnaires were filled in by the pregnant women at the antenatal clinic. For illiterate women the researcher read the questions to the patients and chose the answers based on their opinion.

## RESULTS

Majority of women in the present study were in the age group of 26-35 years (75%). 94% were house wives. 47% had received education up to secondary school level. Family members and friends were the main sources of information regarding mode of delivery (63%). Higher

percentage of women in this study was in the monthly income group of more than Rs 20,000 (61%) and majority of them (51%) were primigravidas (Table 1). As far as the knowledge of these women towards vaginal delivery and cesarean section is concerned, (93%) of women considered that vaginal delivery is less costly and is associated with lower rate of maternal complications (67%).

**Table 1: Demographic characteristics.**

| Characteristics                                      | No. (n=100) | %  |
|--|-------------|----|
| <b>Age (years)</b>                                   |             |    |
| 15-25  | 22          | 22 |
| 26-35  | 75          | 75 |
| >35  | 03          | 03 |
| <b>Occupation</b>                                    |             |    |
| Housewife  | 94          | 94 |
| Working  | 06          | 06 |
| <b>Education (years)</b>                             |             |    |
| Illiterate   | 04          | 04 |
| Primary school                                       | 36          | 36 |
| Secondary school                                     | 47          | 47 |
| College/University                                   | 13          | 13 |
| <b>Source of information about modes of delivery</b> |             |    |
| Family members and Friends                           | 63          | 63 |
| Colleagues   | 07          | 07 |
| Television   | 03          | 03 |
| Health centres                                       | 08          | 08 |
| Private physicians                                   | 12          | 12 |
| Nothing  | 07          | 07 |
| <b>Monthly house hold income</b>                     |             |    |
| < 5000   | 09          | 09 |
| 5000-20000   | 30          | 30 |
| >20000   | 61          | 61 |
| <b>Parity:</b>                                       |             |    |
| Primigravida   | 51          | 51 |
| Multigravida   | 32          | 32 |
| Grand multi gravida                                  | 17          | 17 |
| <b>Previous mode of delivery</b>                     |             |    |
| Primigravida   | 51          | 51 |
| Vaginal delivery                                     | 33          | 33 |
| Cesarean section                                     | 12          | 12 |
| Vaginal delivery and cesarean section                | 04          | 04 |

According to 69% women, vaginal delivery culminates in affectionate relationship with baby. 62% women disagreed that infants born by cesarean section are healthier than those born by vaginal delivery. 75% women do not consider that vaginal delivery leads to sexual dysfunction (Table 2).

Attitude of majority of women revealed that vaginal delivery is the natural mode of birth (89%), health recovery is fast (80%) and involves less risk (67%). The attitude towards cesarean section shows that this mode of delivery is associated with more complications (72%).

Majority of women disagreed with the opinion that cesarean section is preferred due to unpleasant pain of vaginal delivery (65%) or economic problems (80%). Higher percentage of women (71%) did not consider that cesarean section is choice of high class society (Table 3).

**Table 2: Knowledge of pregnant women towards vaginal delivery and cesarean section.**

| Statements for vaginal delivery  | Y  | N  | DK |
|--|----|----|----|
| Cost of vaginal delivery is less then cesarean section                                 | 93 | 5  | 2  |
| Fear of operation  | 78 | 19 | 3  |
| Maternal complications of cesarean are greater   | 67 | 27 | 5  |
| Infection risk of caesarean section is greater   | 60 | 26 | 14 |
| Prolonged bed rest required in cesarean section  | 86 | 10 | 4  |
| Emotional relationship between mother and baby after vaginal delivery is better        | 69 | 7  | 24 |
| Hospital stay cost is less than cesarean section                                       | 88 | 6  | 6  |
| Pain is less in cesarean section   | 50 | 20 | 30 |
| Request of cesarean after one cesarean section   | 52 | 40 | 8  |
| Normal delivery increases the risk of bleeding from vagina                             | 36 | 32 | 32 |
| Cesarean section in breech for baby's sake   | 79 | 5  | 16 |
| Infants born by cesarean section are healthier compared to normal vaginal delivery     | 11 | 62 | 27 |
| Cesarean section preferred because there is sexual dysfunction after vaginal delivery  | 5  | 75 | 20 |
| Infants bone fractures are impossible in cesarean section                              | 3  | 57 | 40 |
| Respiratory disorder in infants born by cesarean section is less then vaginal delivery | 13 | 47 | 40 |

Y= Yes; N=No; DK= Don't know.

## DISCUSSION

Delivery is one of the most important issues of human beings and all generations of the world.<sup>12</sup> A woman's response to labor pain is unique and her attitude towards labor is influenced by her upbringing, culture, ethnic group and age.

In developing countries, lower education level is responsible for poorer knowledge of human reproduction than women in developed countries.<sup>13</sup> Present study showed that 47% women were educated to secondary level and illiterate women comprised only 4% cases visiting hospital. This can be explained on the basis of the fact that in India, traditional views in illiterate society

prefer to have deliveries by indigenous ladies on the grounds of privacy.

**Table 3: Attitude towards vaginal delivery and cesarean section.**

| Statements towards vaginal delivery   | Y  | N  | DK |
|---|----|----|----|
| Vaginal delivery is natural and acceptable mode of delivery   | 89 | 9  | 2  |
| Seeing the baby immediately after vaginal delivery is a pleasure for the mother                                 | 86 | 13 | 1  |
| Mother regains her health status sooner   | 80 | 9  | 11 |
| In term of outcome vaginal delivery is more pleasant  | 76 | 11 | 13 |
| Vaginal delivery creates a more affectionate mother baby relationship   | 82 | 9  | 9  |
| In term of fear of anaesthesia vaginal delivery is preferable   | 52 | 42 | 6  |
| Vaginal delivery is better in long term   | 66 | 22 | 12 |
| Prefer vaginal delivery because don't like scar marks on their body   | 23 | 71 | 6  |
| Vaginal delivery is less risky for the mother   | 67 | 21 | 12 |
| Cesarean section is associated with complications   | 72 | 19 | 9  |
| Cesarean section is preferable as pain of vaginal delivery is unpleasant  | 32 | 65 | 3  |
| Babies born by cesarean section are healthier than those delivered by vaginal delivery                          | 21 | 71 | 8  |
| Cesarean section is preferable as mother's position on the delivery table is unpleasant                         | 11 | 76 | 13 |
| Cesarean section is preferable in the absence of economic problems  | 18 | 80 | 2  |
| Concurrent cesarean section is suitable option for tubal ligation   | 38 | 52 | 10 |
| Cesarean section prevents pelvic relaxation   | 16 | 71 | 13 |
| Cesarean section prevents uterus and bladder prolapse   | 19 | 38 | 43 |
| Cesarean section prevents deformation and malformation of female genital tract                                  | 35 | 39 | 26 |
| Choosing cesarean section for high social class   | 14 | 71 | 15 |
| Main reason of choosing cesarean section is fear and lack of sufficient knowledge about normal vaginal delivery | 66 | 28 | 6  |

Y= Yes; N=No; DK= Don't know.

Majority of women in the present study belonged to economic group with monthly income more than Rs 20,000/- who can afford to receive hospital treatment. In

our study most frequent source of information on delivery has been found to be family members and friends.

Previous experience of delivery has been found to influence the knowledge of women on the health centers and mode of delivery and child bearing. Television, health centers, private physicians have not had an adequate role in providing such information. Women showed higher scores on attitude towards vaginal delivery in the present series.

This preference, according to some authors is related to those who could not afford cesarean section but present study revealed that majority of women did not consider economy as the factor for vaginal delivery over surgery.<sup>3</sup>

In present study, majority of women (69%) preferred vaginal mode of delivery because they believed that it enhances the affectionate relationship between mother and baby.

They did not view cesarean section as a normal way of giving birth because of higher rate of complications, prolonged bed rest and bleeding risks. Similar observations have been made by Aali et al.<sup>14</sup>

Hence it becomes necessary to restore positive cultural and social values towards normal vaginal delivery and decrease negative beliefs attached to it.

Since knowledge comes through education, emphasis is laid on continuing education of pregnant women in order to raise their awareness which is required to promote their health. Various adapting policies have to be planned to make vaginal delivery less painful in order to decrease rate of cesarean section.<sup>12</sup>

## CONCLUSION

Majority of pregnant women interviewed in our institution were keen to deliver vaginally, while the remaining women due to lack of knowledge or phobia of vaginal delivery and improper guidance wanted to undergo cesarean section.

Labour pain is one of the most severe pains that women experience during their lifetime. One of the reasons for cesarean delivery is fear of labour pain and lack of relief methods.

An important step in controlling the rising cesarean birth rate in developing countries is providing better information to pregnant women and their partners during the antenatal period about modes of delivery, their indications, advantages and adverse consequences.

This can lead to a positive maternal knowledge and attitude towards vaginal delivery.

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