



A STUDY OF KNOWLEDGE AND ATTITUDE OF ANTENATAL WOMEN TOWARDS INSTRUMENTAL DELIVERY

Obstetrics & Gynaecology

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ABSTRACT

Background: There are various modes of delivery of foetus, normal spontaneous vaginal birth, assisted vaginal birth from ventouse or forceps, unplanned and planned caesarean section. Majority of women have spontaneous vaginal births, but some women need assistance in second stage with delivery of the baby, using either the obstetric forceps or vacuum extraction.¹ Rates of instrumental vaginal delivery range from 5% to 20% of all births in industrialised countries.² More recently, among pregnant women visiting hospitals, multiple factors of motivation related to women's mode of delivery preferences have been added. Majority of participants considered vaginal delivery as a normal, safe, and natural mode of delivery, except for a medical indication for caesarean section. But somehow there is fear in women regarding instrumental delivery. **Objective:** To assess the knowledge and attitude regarding the mode of childbirth and instrumental delivery among antenatal women. To find out the association between selected socio-demographic variables with knowledge and attitude in antenatal women towards instrumental delivery. **Methods:** Data consist of primary data collected by principal investigator directly from the outpatient Department of Obstetrics & Gynaecology, GCS medical College Hospital, Ahmedabad. This was a cross-sectional single centre questionnaire-based study. It was designed to assess the demographics (Question 1 to 3), obstetric history (Question 4 to 8), knowledge about instrumental delivery (Question 9 to 19), and attitude about instrumental delivery (Question 20 to 25) of the participants. Each correctly answered question contributed to 1 point to total score. The instrumental delivery knowledge was categorised into three levels. Low (0-5), middle (6-11), and high (7-17). Sample size-100. **Results:** Maximum subjects i.e., 55% belong to 20-30 age group, 65% belong to urban area, 30% having secondary education, 54% are multigravida having previous normal delivery with or without episiotomy, majority of them (36%) gathering information from health care personnel, 99% prefer doctor to perform instrumental delivery and 58% prefer forceps delivery as compared to ventouse. (42%). **Conclusion:** Despite adequate knowledge about various modes of delivery among antenatal women, there is a negative attitude towards instrumental delivery. Thus, proper education and counselling in antenatal period can change women's attitude towards instrumental delivery.

KEYWORDS

Instrumental vaginal delivery, caesarean section, forceps, normal delivery, vacuum, ventouse

INTRODUCTION

- Assisted or operative vaginal birth refers to the use of vacuum, or forceps to achieve a vaginal delivery in the second stage of labour.
- When the decision is being made as to whether or not a birth requires assistance, including the timing and choice of instrument, considerations must include indications and contraindications to the procedure, the maternal or foetal risks of using either instrument, the urgency of the need to expedite delivery, the experience and skills of the birth attendant, and the risks associated with the alternative choice of caesarean section.
- ³Instrumental delivery is one of the basic functions of emergency care according to WHO, yet the incidence of instrumental delivery in India is only 2.7% to 5%. Therefore, there is an urgent need to reintroduce instrumental need in the modern obstetrics.
- Obstetric forceps are instruments designed for extraction of the foetal head. Forceps cradle the parietal and malar bones of the foetal skull and apply traction to these areas as well as laterally displacing maternal tissue.
- Complications of using forceps for mother include lacerations of the vulva, vagina and cervix, postpartum haemorrhage, postpartum urinary retention and bladder dysfunction, genital tract infection and anal sphincter injury and dysfunction; and for foetus include cephalhematoma, foetal facial mark and lacerations, intracranial haemorrhage, foetal skull fractures, facial nerve palsies and cord compression.
- A vacuum extractor applies suction and traction to an area of the foetal scalp covered by a suction cup to assist maternal expulsive efforts.
- Complications of using vacuum cups for mother include cervical lacerations, severe vaginal lacerations, vaginal hematomas and third- and fourth-degree tears; and for foetus include foetal scalp trauma, subgaleal haemorrhage, intracranial haemorrhage, hyperbilirubinemia, and retinal haemorrhage.

MATERIALS AND METHODS

- A cross-sectional single centre questionnaire-based study was

carried out in outpatient department of obstetrics and gynaecology, GCS medical college and hospital, Ahmedabad

- The study was carried out after approval from the university's institutional review board and ethical panel.
- Patients who had taken part in the trial were singleton pregnancies with an uneventful antenatal course between 35-40 weeks of gestation who are not in labour.
- Initial workup of the patients included a comprehensive history taking, a questionnaire that was given to all participants which was designed to assess the demographics (Question 1 to 3), obstetric history (Question 4 to 8) knowledge about instrumental delivery (Question 9 to 19) and attitude about instrumental delivery (Question 20 to 25) of the participants. Each correctly answered question contributed to 1 point to total score. The instrumental delivery knowledge was categorised into three levels. Low (0-5), middle (6-11) and high (7-17).

Study Design: Observational Cross-Sectional Study

Study Site: Outpatient department of Obstetrics and Gynaecology, GCS medical college, hospital and research centre, Ahmedabad

Study Population: Singleton pregnancies with an uneventful antenatal course between 35 to 40 weeks of gestation who are not in labour.

Inclusion Criteria

Singleton pregnancies with an uneventful antenatal course between 35 to 40 weeks of gestation who are not in labour.
Women eligible for study who gives written consent.

Exclusion Criteria

Planned caesarean section delivery.
Women presenting in the active phase of labour.
Women with severe obstetric and medical conditions.

Foetal abnormalities.

Study Period: One year

Sample Size: 100

RESULTS

Maximum subjects i.e., 55% belong to 20-30 age group, 65% belong to urban area, 30% having secondary education, 54% are multigravida having previous normal delivery with or without episiotomy, majority of them (36%) gathering information from health care personnel, 99% prefer doctor to perform instrumental delivery and 58% prefer forceps delivery as compared to ventouse. (42%)

Table 1: Showing Relationship Of Socio-demographic Variables With Level Of Knowledge Of Instrumental Delivery

AREA	POINTS AS PER QUESTIONNAIRE		
	HIGH	MIDDLE	LOW
URBAN	0	13	52
RURAL	0	18	17

LOW (0-5)

MIDDLE (6-11)

HIGH (7-17)

Table 2: Corelation Of Level Of Education And Attitude Towards Instrumental Delivery

EDUCATION	POINTS AS PER QUESTIONNAIRE		
	LOW	MIDDLE	HIGH
POSTGRADUATE	0	0	2
GRADUATE	0	6	14
HIGHER SECONDARY	0	7	20
SECONDARY	0	10	20
PRIMARY	0	2	10
UNEDUCATED	0	6	3

LOW (0-5)

MIDDLE (6-11)

HIGH (7-17)

Table 3: Relationship Of Knowledge Of Instrumental Delivery And Attitude Towards Various Modes Of Delivery

Points As Per Questionnaire	Attitude Towards Mode Of Delivery		
	Normal	Caesarean	Instrumental
LOW	0	0	0
MIDDLE	19	9	3
HIGH	51	12	6

LOW (0-5)

MIDDLE (6-11)

HIGH (7-17)

DISCUSSION

- This study suggests that despite good knowledge regarding instrumental delivery, women's perceptions towards instrumental delivery are generally negative.
- Our analysis of educational background suggested that those with lower levels of education were sceptical of instrumental delivery. This is likely due to lower health literacy.
- Many other factors like lifestyle, source of information, parity affect quality of knowledge and attitude towards mode of delivery. i.e., people residing in urban area having good amount of knowledge prefer instrumental delivery over caesarean section.
- Age surprisingly did not produce statistical differences.
- Majority of women did not know that caesarean section has more maternal complications than any mode of vaginal delivery and hence did not believe that instrumental delivery could lower the caesarean birth rate.
- Many of them prefer forceps delivery over ventouse delivery.
- Proper education and counselling in antenatal period can change women's attitude towards instrumental delivery.

CONCLUSION

Despite adequate knowledge about various modes of delivery among antenatal women, there is negative attitude towards instrumental delivery. Thus, proper education and counselling in antenatal period can change women's attitude towards instrumental delivery.

Conflict Of Interest: none declared

Funding: no funding sources

Ethical Approval: The Study Was Approved By The Institutional Ethics Committee

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