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Original Research Article

Awareness of birth plan, key concerns and patient satisfaction in women booked for antenatal care at a tertiary hospital

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Abstract

Background and Objectives: Birth plans have received a positive response in most developed countries as a way to bridge gaps and enhance relationships between the subject and the care giver, but in some countries, they have been subjected to skepticism as it led to friction between the doctor and the subject. In India educational status is a great determinant of child birth planning. Most women lack formal education about process of delivery, its risks and complications, hence, in Indian scenario birth plans are still a neo entity. This study was conducted in order to assess awareness of birth plan in Indian women, awareness regarding the process of child birth, the mother's preferences and choices regarding mode of delivery, and patient satisfaction post-delivery.

Methods: A questionnaire was developed that assessed parameters such as educational status, parity and awareness of birth plan in women in their third trimester attending the antenatal clinic and a post-partum questionnaire was administered within 2 weeks of birth or at post-partum visit. Patient satisfaction was then assessed based on the data collected.

Results: A total of 220 women completed the questionnaire, of which 1.4 per cent (n=3) were aware about a birth plan while the others (n=217) which included women from all strata of society and varying education levels, had no awareness of the concept of a birth plan. Although 98.6% of women were unaware of a birth plan most (77.3%) opted for a vaginal delivery and 22.7% opted for an elective cesarean section. While all the women (100%) requested for any form of pain relief intra and post-partum, only 87.7% (n=193) were satisfied with the pain relief they received. Women whose mode of delivery was as planned reported higher satisfaction rates. Overall 88.01% women (n=194) who were not aware of birth plan still had positive satisfactory childbirth experience while 11.98% (n=26) reported negative experience.

Conclusions: Though 50.50% of women in the study were educated up to higher secondary level only 1.4% were aware of the concept of a birth plan. Hence, education is not a sole determinant in the lack of awareness of planning for a birth. Other determinants that seemed to play a role in the mother's satisfaction rates were mode of delivery, management of labour and post-partum analgesia and cultural beliefs such as sex of the child.

Keywords: Analgesia, childbirth, labour, birth plan

Introduction

A birth plan is a written document that a pregnant woman prepares with the help of her partner and caregiver before or during pregnancy regarding her desires during labour and the

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available options for labour. It can be modified as and when required and it empowers a woman to make her own decisions and to exert more control over the events during the process of labour and postpartum. Every woman has a right to receive information on proposed care, expected results, risks, advantage/disadvantages and alternate procedures [1-3].
A birth plan involves the identification of several elements related to actual birth. These include the desired place of birth, the location of the nearest appropriate health care facility, identification of preferred birth attendant, setting aside funds to cater for transport, birth-related and emergency expenses, identification of a birth partner or companion, planning for transport in case of an obstetric emergency and identification of a compatible blood donor in case of emergency [4, 5, 10].
Birthing is a journey that is both personal and cultural in India. Historically Indian birth practices involved home deliveries conducted by midwives or "Dai's". As India evolved culturally, the trend shifted towards institutional births. Even today with the advancement in technology, transport systems and accessibility to tertiary care hospitals, majority of rural India is far from the reach of medical facilities. Most women enter motherhood with very little information. Most women in the rural settings still prefer trained dai's and home deliveries. Issues surrounding childbirth and sexuality usually do not match those of other countries. Common cultural beliefs and behaviors of Indian patients around sexuality and childbirth experience include the role of the individual patient's duty to society, the patient's sense of place in society, lack of formal sexual education, prearranged marriages, importance of the birth of the first child, sex of the child, little pre-marital contraceptive education, dominance of the husband in contraceptive decisions, and predominant role of women(mother and mother-in-law) and lack of role for men (including the husband) in the childbirth process [6-8].
In the Indian scenario, there is Paternalism in obstetrics. Women are not given the choice to make an informed decision either an informed consent or informed refusal regarding these interventions. Hence, an attempt to introduce birth plans in India are a far cry in current delivery practices [9-10].

Materials and Methods

This study was carried out between June 2016 to May 2018 at Kamineni Academy of Medical Sciences & Research Centre, LB Nagar, Hyderabad, Telangana, India, a tertiary care center. 220 women who have fulfilled the inclusion criteria have been recruited into the study after obtaining informed consent.

Inclusion criteria

- All pregnant women
- Booked
- Gestational age >/=37weeks
- Low risk groups were included in the study.

Exclusion criteria

- Unbooked women and women with Irregular antenatal checkups.
- Late booking, Preterm delivery planned due to obstetric indications.
- High risk groups and Drop outs were excluded from the study.

Women who were willing to be part of the study were taken into study group. The purpose of study and methodology was explained to the women. A written consent was obtained. A questionnaire was developed after reviewing the literature regarding birth plans and adjusted to suite the current practice at our hospital and its policies. The questionnaire was administered in English and Telugu and translated to Hindi when required. It consists of 3 parts: Part 1: Socio-Demographic data which includes age, level of education, occupation and socio-economic class. Part 2:Antenatal questionnaire including obstetric formula, number of antenatal visits, gestational age at booking, knowledge about birth plan, identification of

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blood group and blood donors, preferences regarding mode of delivery, pain management and interventions. Part 3: Post natal questionnaire which includes her desire to breast feed, duration of stay in the hospital, satisfaction regarding pain management, mode of delivery and over all patient satisfaction.

The 1st questionnaire which includes part 1 and 2 was administered on OPD basis when the woman came for her routine antenatal checkup during the 3rd trimester. The 2nd questionnaire was subsequently filled out either before discharge or during follow up within 2 weeks of delivery.

Data were entered in MS Excel and analyzed as simple proportions and percentages. Mathematical calculations were done using conventional statistical formulae. Descriptive and inferential principles were used to draw conclusions from the study.

Results

A total of 220 women consented to be a part of this study. The women in this study were between the age group of 19-36 years with a mean age of 25.33 years. The mean gestational age at booking was 17.4 weeks and average number of 7.03 antenatal visits. Of the 220, 50.50% of women were educated (graduate and post graduate level), while only 1.4% (n=3) were aware of the birth plan, indicating that educational status is not a determinant in creating awareness. Socioeconomic status which is one of the most important determinants of health of an individual is assessed based on 3 factors, a person's income, education and occupation. Most of the women in our study (63.20%) belonged to class III SEC according to Modified Kuppuswamy scale. Others belonging to Class II (18.20%) and class IV (18.60%) SEC. Of the 220 women in this study 60% (n=133) were Primigravidae, 15.4% of women (n=34) were Multigravidae with previous vaginal delivery, and 24.2% (n=53) were Multigravidae with previous Caesarean section.

Majority of the women 94.1% (n=207) conceived spontaneously while 5.9% (n=13) had received treatment for infertility. Mode of conception was a determining factor for mode of delivery as 53.84% of women who conceived with treatment requested for an elective cesarean delivery.

Although only 3 women were aware of a birth plan, 77.3% women wished to have a normal delivery and 22.7% requested for an elective cesarean, the most common reason quoted for this request being fear of pain. 170 women opted for a vaginal delivery, out of which 64.7% (n=110) had a vaginal delivery, 110 women had a Caesarean section. Emergency Caesarean due to fetal complications, was the most common cause for Caesarean. 53 women had a previous Caesarean. 28.3% of the women (N=15) wanted a trial of vaginal birth and 71.7% of the women (n=38) wanted a repeat Caesarean without trial. Only 1 woman among the 15 had a vaginal birth after Caesarean and was highly satisfied with the experience.

100% of the women wanted some form of pain relief intra and post-partum. Pain management was the single most important factor that patients requested all women received some form of pain relief. Most common being i.v or oral analgesics. Entonox (an inhalational analgesic) which contains 1:1 ratio of Nitrous oxide and O2, was the second most commonly used analgesic, while the least commonly used was epidural, only 1.4% (n=3). 87.7% of the women were satisfied with the type of pain relief they received, while 12.3% of the women were dissatisfied with pain relief and felt that they should have received additional pain relief either oral or intravenous.

100% women wanted to breast feed their baby after delivery. Top feeds were given to 17 babies due to lactation failure or difficulty in feeding, while 92% of the women could breastfeed their babies without additional feeds.

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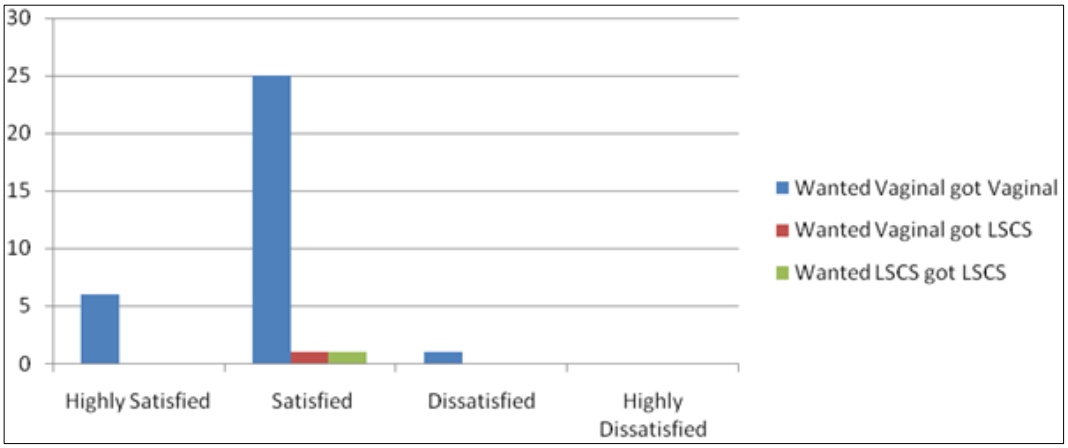
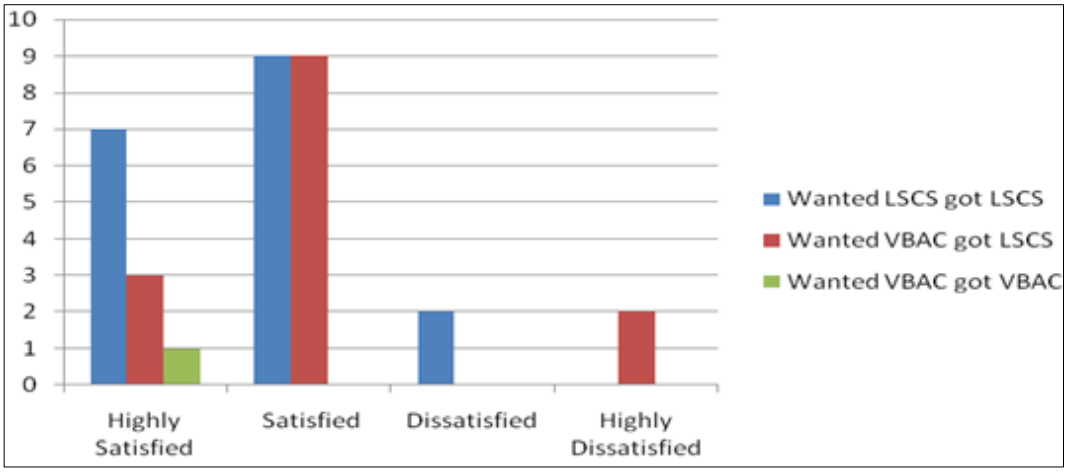
The above graph representing 133 primigravidae shows that mode of delivery is an important factor in determining childbirth satisfaction. Women were more satisfied when they had the mode of birth they opted for.

Mode of Delivery and Patient Satisfaction in Multigravida with previous Vaginal Delivery



Mode of Delivery and Patient Satisfaction in Multigravida with previous Caesarean



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Discussion

Women began giving over control of their births to physicians and technology; some say that this led to a paternalistic environment for childbirth (Lothian, 2006) [1]. In response to what they perceived as an increasing emphasis on medical intervention, technology, and impersonal care, childbirth educators introduced the birth plan in the late 1970s. This was done in order to help women take back some control of the birthing process. Birth is considered as a natural process and most women prefer to have a vaginal birth.

Birth plans have different formats to help women gain a better experience of child birth. One format is a list of options that women could use during labour and delivery while another format consists of open questions by which women can indicate their preferences [11].

Other elements of the birth plan include requests to ambulate during labor, drink fluids as desired, to receive the baby to the abdomen after birth, and to have support persons in attendance. They also often contain a list of things that the woman wishes to avoid, such as continuous fetal monitoring, episiotomies, pain medications, and epidurals [12].

Vaginal delivery has its own risks and benefits in that it is the most natural way to give birth, with minimal maternal morbidity and mortality in an uncomplicated, low risk setting. But it can get complicated and complications such as meconium stained liquor (MSL), fetal distress, maternal exhaustion, prolonged second stage of labour can impose a risk to the fetus. In such events need for episiotomy or instrumental delivery and in some cases an emergency cesarean section becomes necessary, which may not be acceptable to a mother whose birth plan did not account for such an emergency, hence leading to maternal apprehension and dissatisfaction.

Labour analgesia is the most important component of a birth plan. Labour analgesia includes pain relief both intra and post-partum. Angela Pennell MD, *et al*. 2011 [15]. In their study involving birth plans and use of labour analgesia and anaesthesia, >50% women did not include epidural analgesia in their birth plan. 65% of the women requested of epidural analgesia in total. They concluded that 15% of the women who did not plan for an epidural ended up requesting for epidural analgesia and 90% of all those who chose to have an epidural were satisfied with the result.

Regarding the determinants of satisfaction associated with the experience of childbirth, the main factors identified in the literature are those relating to pain in labour, the woman's perception of control during the process, her self-efficacy, and her expectations regarding labour and childbirth (Waldenstrom and Small, 2001; Christiaens and Bracke, 2007; Lally *et al*., 2008; Fair and Morrison, 2012).

While several studies have shown that birth plans have a positive impact on women's level of satisfaction in terms of enhancing their understanding of labour and delivery, allowing women to express their needs and preferences, and improving communication between women and care providers, few studies have shown no effect at all or a negative effect [21-24].

One randomized control trial has been conducted to assess the use of birth plans: Kuo and colleagues found that nulliparous women in Taiwan who created a birth plan reported a more positive childbirth experience and higher perceived control over the childbirth experience than women who did not use a birth plan [11].

A study by Grant, Sueda, and Kaneshiro (2010) compared the perceptions of obstetric physicians and nurses and antepartum patients regarding outcomes in women with birth plans. They found that 65% of caregivers believed that patients with birth plans had an overall worse obstetric outcome, whereas only 2.4% of patients held that belief. Sixty-five percent of healthcare providers thought that women with birth plans were more likely to have a cesarean birth, whereas only 8.7% of the patients interviewed believed this to be true.

In a different study by Deering, Zarat, McGaha *et al.*, compared the outcomes of women with birth plans to matched controls without birth plans. There were no statistically significant differences in cesarean rate (17% in the birth plan group versus 12% in the group without a birth plan) [25].

Women in this study include multiparous women with previous vaginal deliveries and previous Caesareans who already had an insight into the birthing process as well as

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primiparous women embracing motherhood and childbirth experience for the first time. While 98.6% of the women the study population were not aware of birth plan, Primigravidae and Multigravidae alike, most women had a preconceived notion or idea of what kind of birth they wanted. Women with the highest number of their requests fulfilled were associated with a positive birth experience. Requests included no operative vaginal delivery, intravenous analgesics, no episiotomy, request to immediate breastfeeding.

Mode of delivery was a major determinant of patient satisfaction as women who had the type of delivery they wished for reported highest satisfaction rates. Unplanned medical interventions during childbirth, e.g. oxytocin augmentation, emergency caesarean and operative vaginal deliveries, intrapartum complications and need of neonatal intensive care are related to maternal dissatisfaction.

Overall 88.01% women (n=217) who were not aware of birth plan still had positive satisfactory childbirth experience while 11.98% (n=26) reported negative experience. Other factors such as expectations from the in-laws regarding sex of the child, marital relationship, lack of hospital policy to comply with requests such as permitting birth attendants during delivery, cost factors that limit using epidural analgesia, were all limitations that affected patient satisfaction. The study concluded that further research was needed to understand how to improve birth plan related birth experience satisfaction.

Conclusion

Finally concluded that only 1.4% of the study's female participants had heard of the idea of a birth plan, despite the fact that 50.5% had completed upper-secondary education. Because of this, lack of awareness of birth planning is not solely due to lack of education. Modality of delivery, labor management, post-partum analgesia, and cultural beliefs like the child's sex all appeared to have an impact on the mother's satisfaction rates.

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Conflict of interest

None

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