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Original Research Article

Assessment of maternal birth satisfaction and intra-partum experiences among the women of rural areas of Tamil Nadu- a cross sectional study

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ABSTRACT

Background: Childbirth, though a physiological process, has been associated with multiple risks and stress on the women, even before the time of conception till the post-partum. Every woman around the world has a right to receive respectful maternity care. Birth satisfaction and respectful maternal care has direct impact on percentage of institutional deliveries. There is paucity of studies conducted among the women of rural Tamil Nadu regarding birth satisfaction and intrapartum experiences.
Methods: A cross-sectional study was conducted in primary health center area, red hills among the post-partum women attending the immunization OPD at 6, 10 and 14th week after delivery during the months of March to June 2018. By simple random sampling technique 195 subjects were included. A semi-structured questionnaire was administered to collect the data. Ethical clearance was obtained from our Institutional Ethics Committee. Data was entered in MS Excel and analysis was done using SPSS Software version 23.
Results: The study shows the importance of maternal satisfaction and intrapartum experiences of women in rural areas. It concluded that the overall satisfaction was 85.5%. The transport facility available at the health care set up which satisfied the mothers was around 91.4%. The interaction of health care providers with mothers during delivery was around 64.5%. Cleanliness and comfort of the delivery area was around 64%. Equality of care provided at the health care set up was around 83%.
Conclusions: Reasons for delivery visit, duration of labour, and mode of delivery are independent predictors of maternal satisfaction.

Keywords: Birth satisfaction, Maternal, Rural, Tamil Nadu, Women

INTRODUCTION

Childbirth, though a physiological process, has been associated with multiple risks and stress on the women, even before the time of conception till the post-partum, in India. The intrapartum period is crucial as the complications are more common during the time. Apart from the physical component, the quality of care given and the satisfaction of mothers with regard to the care provided by the health facility workers is gaining prime place in MCH systems.

Every woman around the world has a right to receive respectful maternity care. The concept of "respectful maternity care" has evolved and expanded over the past few decades to include diverse perspectives and frameworks.[1] In 2014, WHO released a statement calling for the prevention and elimination of disrespect and abuse during childbirth, stating that "every woman has the right to the highest attainable standard of health, including the right to dignified, respectful care during pregnancy and childbirth" and stressed to include respectful care as an essential component of quality care.[2] Birth satisfaction

and respectful maternal care has direct impact on percentage of institutional deliveries.[3] Hence, this acquires higher relevance in Indian scenario considering the fact that institutional birth in our country is only 78% and 38% of the women don't receive any post natal care within 2 days and thus contributing to poor Maternal mortality Rate (MMR) of 167 in India.[4,5] In Tamil Nadu the rate of institutional delivery is higher when compared to the rest of the country. The maternal and infant mortality rate in Tamil Nadu is also.

The concept of "obstetric violence" gained momentum in the global maternal health community. Obstetric violence is defined as the appropriation of women's body and reproductive processes by health personnel, which is expressed by a dehumanizing treatment, an abuse of medicalization and pathologization of natural processes, resulting in a loss of autonomy and ability to decide freely about their bodies and sexuality, negatively impacting their quality of life.[1]

Justification

There is paucity of studies conducted among the women of rural Tamil Nadu regarding Birth satisfaction and intrapartum experiences. The increase in quantity of institutional deliveries should be accompanied by improvements in quality.

Aims and objectives

To determine the birth satisfaction among the women delivered in rural areas of Tamil Nadu. To assess the intrapartum experiences and quality of care to pregnant women.

METHODS

Cross-sectional study comprising post-partum women attending the immunization OPD at 6, 10 and 14th week after delivery. The study took place at Red hills PHC area for a period of 4 months- March to June 2018

Inclusion criteria

All births without any post-partum complications for child and mother.

Exclusion criteria

Women or neonate who developed complications immediately after delivery, women who didn't give consent.

Sample size

P= 68.7% (6), q= 31.3% l=7%

N= $4pq/l^2$

N= 175+ 10% non-response; N=195.

Sampling method

Simple random sampling method. Line listing of the post-partum women attending immunization clinic after delivery were taken into account. By generating a random number through computer, the sample size was achieved.

Data collection

A validated, pre-tested, semi- structured, interviewer administered Tamil questionnaires containing standard and validated scale for measuring maternal satisfaction (SMMS), socio-demographic profile and labor time experiences of the women is used

Data analysis

Data was compiled and analyzed using MS Excel and SPSS 23. Descriptive statistics for frequencies of variables and appropriate tests of significance was applied. Tests like chi square test and Fisher's exact tests were applied value <0.05 were considered as statistically significant.

Operational definitions

The overall satisfaction of mothers was measured based on the answer which they give for question related to satisfaction and if their response is fairly satisfied and very satisfied for 75% of questions or more, they were classified as "satisfied" and otherwise they were classified as "unsatisfied."

Ethical issues

Informed written consent was obtained from the participants, after providing information about the study and assurance about the confidentiality of their identity and data.

RESULTS

Among the study participants 10.5% were below 20 years. 58% were in the age group of 21 to 25 years. 28% were in the age group of 26 to 30 years. More than 30 years comprises 3.5%. Among the spouses, around 18.5% were in the age group of 21 to 25.47% were in the age group of 26 to 30 years.32.5% were in the age group of 31 to 35 years. 2% were in the age group of 36 to 40 years.

Table 2 shows the education wise distribution of the study participants and spouses. Among the study participants, 1.5% were illiterates. Among the literates 21% had gone to primary school, 24.5% had gone to middle school, 28% had gone to high school, 16.5% had gone to higher secondary school, 8.5% had completed degree. Among the spouses 2.5% were illiterates. Among the literates 10% had gone to primary school, 27% had gone to middle

school, 26% had gone to high school, 22.5% had gone to higher secondary, 12% had completed degree.

Table 1: Age wise distribution of study participants and spouses.

Age group in years	Study participants	Spouses
	N (%)	N (%)
≤20	21 (10.5)	-
21 to 25	116 (58)	37 (18.5)
26 to 30	56 (28)	94 (47)
>30	7 (3.5)	69 (34.5)

Table 2: Education wise distribution of the study participants and spouses.

Education status	Study participants	Spouses
	N (%)	N (%)
Illiterate	3 (1.5)	5 (2.5)
Primary	42 (21)	20 (10)
Middle	49 (24.5)	54 (27)
High	56 (28)	52 (26)
Higher secondary	33 (16.5)	45 (22.5)
Degree	17 (8.5)	24 (12)

Table 3 shows the occupational status of the study participants and spouses. Among the study participants 35% were home makers. 22% were unskilled workers, 17.5% were semi-skilled, 14% were skilled, 7.5% were clerical/farmer/shop owner, 4% were semi-professionals and none belonged to the category of professionals. Among the spouses 0.5% were unemployed, 15.5% were unskilled, 29% were semi-skilled, 27% were skilled, 18% were clerical, shop owner/farmer, 9% were semi-professional, 1% were professionals.

Table 3: Occupation wise distribution of the study participants and spouses.

Occupational status	Study participants	Spouses
	N (%)	N (%)
Unemployed	-	1 (0.5)
Home maker	70 (35)	0
Unskilled	44 (22)	31 (15.5)
Semi-skilled	35 (17.5)	58 (29)
Skilled	28 (14)	54 (27)
Clerical, shop owner, farmer	15 (7.5)	36 (18)
Semi professional	8 (4)	18 (9)
Professional	0	2 (1)

Table 4: Type of family among the study participants (n=200).

Type of family	Frequency	Percentage
Nuclear	112	56
Joint	84	42
Broken	4	2

Table 4 shows the family wise distribution 56% belonged nuclear family, 42% belonged to joint family, 2% belonged to broken family.

Table 5: Socio economic status of the study participants (n=200).

Socio economic class	Frequency	Percentage
Upper	46	23
Upper middle	68	34
Middle	49	24.5
Lower middle	22	11
Lower	15	7.5

Table 5 shows the socio demographic status of the study participants 23% were in upper class, 34% were in upper middle, 24.5% were in middle class, 11% were in lower middle, 7.5% were in lower class.

Table 6: Obstetric factors of study participants (n=200).

Parameters		Frequency	Percent
Parity	Primi	83	41.5
	Multi	117	58.5
Place of delivery	Primary/urban health centres	69	34.5
	Taluk/headquarters hospital	16	8
	Tertiary care hospital	52	26
	Private hospitals	63	31.5
Conduction of deliveries	Doctors	148	74
	Nurses/VHN/ANM	52	26
Allowing birth attendants		97	48.5
Motivation for institutional delivery		194	97

Among the study participants 83 (41.5%) were primi, 117 (58.5) were multi parous women. 69 (34.5%) got delivered in primary/urban health centres, 16 (8%) got delivered in taluk/headquarters hospitals, 52 (26%) got delivered in tertiary care hospitals. 63 (31.5%) got delivered in private hospitals. 148 (74%) deliveries were conducted by doctors, 52 (26%) deliveries were conducted by nurses/VHN/ANM. 97 (48.5%) were allowed as birth attendants. 194 (97%) got motivated for institutional delivery.

Table 7 shows the maternal satisfaction parameters, 183 (91.5%) were satisfied with the transportation facility provided during labour, 17 (8.5%) were unsatisfied. 128 (64%) got satisfied with the delivery area cleanliness and comfort, 72 (36%) were unsatisfied. 129 (64.5%) were satisfied with care and helpfulness of health care professionals. While 71 (35.5%) were unsatisfied. 166 (83%) felt that the patients were equally treated. 34 (17%) were not satisfied with the equality of treatment.

Table 7: Intrapartum experiences of mothers in relation to satisfaction.

Parameters	Maternal satisfaction (%)	
	Satisfied	Unsatisfied
Availability of Transportation	183 (91.5)	17 (8.5)
Delivery area cleanliness and comfort	128 (64)	72 (36)
Care and helpfulness of Health care professionals	129 (64.5)	71 (35.5)
Equal treatment of patients in the health care set up	166 (83)	34 (17)

Table 8: Healthcare factors associated with delivery (n=200).

Variables		Frequency	Percentage
Reason for delivery visit	Planned	133	66.5
	Referred	67	33.5
Laboring time	<6 hours	64	32
	6 to 12 hours	113	56.5
	>12 hours	23	11.5
Mode of delivery	Vaginal	157	78.5
	Caesarean	43	21.5

Among the study participants 133 (66.5%) were planned delivery, 67 (33.5%) were referred cases. Regarding the laboring time within 6 hours comprised 64 (32%), 113 (56.5%) delivered within 6 to 12 hours. While 23 (11.5%) women delivered more than 12 hours. Around 157 (78.5%) were vaginal delivery, 43 (21.5%) were caesarean section.

On the whole the overall satisfaction among post-partum mothers was found as 85.5% whereas 14.5% were unsatisfied.

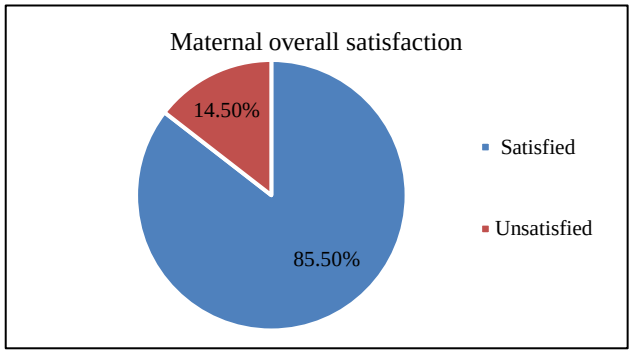

Figure 1: Maternal overall satisfaction.

Among the study participants planned deliveries got a high satisfaction when compared to referral. There was a statistically significant association found between reason for delivery visit and maternal satisfaction. Regarding the laboring time less than 6 hours has the highest satisfaction. There was a statistically significant association found between laboring time and maternal satisfaction. Regarding the mode of delivery vaginal delivery got high satisfaction of 82.80%. There was also a statistically significant association found between mode of delivery and maternal satisfaction.

Table 9: Factors associated with maternal satisfaction.

Variables		Maternal satisfaction		Chi square	Df	P value
		Satisfied	Unsatisfied			
Reason for delivery visit	Planned	103 (77.4)	30 (22.55)	35.532	1	<0.000
	Referred	23 (34.32)	44 (65.67)			
Laboring time	<6 hours	61 (95.31)	3 (4.68)	16.566	2	<0.001
	6 to 12 hours	84 (74.33)	29 (25.66)			
	>12 hours	14 (60.86)	9 (39.13)			
Mode of delivery	Vaginal	130 (82.80)	27 (17.20)	9.815	1	0.001
	Cesarean 43 section	26 (60.46)	17 (39.54)			

DISCUSSION

In this study the overall satisfaction of mothers on delivery service was found to be 85.5% which was in line with the study conducted in Assela hospital (80.7%), and a study conducted in Ethiopia was 81.7%.[6,7] This study was higher than a study conducted in tertiary care center in Delhi which was 61.1%.[8] The difference could be explained by quality of services provided, expectation of mothers, or the type of health facilities.

Having plan to deliver at health facility was significantly associated with maternal satisfaction on delivery services. This finding was similar with the study conducted and other foreign studies. The expectations were based on their own past experiences in a hospital facility, perception of an assisted delivery, experiences of friends and relations in a hospital facility.

In this study, laboring time of mothers was significantly associated with satisfaction of mothers on delivery services. Similarly, a study conducted in Nigeria showed that the satisfaction of mothers who stayed on labor pain

for less than 10 hours was higher. Similarly, a study in North Gondar also influenced the satisfaction of mothers if it is a prolonged labor.[9]

This study also showed the spontaneous vaginal delivery was associated with higher satisfaction. This finding was in line with similar studies.

As the study was a cross sectional study there will be absence of inferring causality and information bias can be possible.

CONCLUSION

The study shows the importance of maternal satisfaction and intrapartum experiences of women in rural areas. It concluded that the overall satisfaction was 85.5%. The transport facility available at the health care set up which satisfied the mothers was around 91.4%. The interaction of health care providers with mothers during delivery was around 64.5%. Cleanliness and comfort of the delivery area was around 64%. Equality of care provided at the health care set up was around 83%. Reasons for delivery visit, duration of labor, and mode of delivery are independent predictors of maternal satisfaction.

Recommendations

Respectful maternal care and birth satisfaction has direct impact on institutional deliveries. Thereby reducing the maternal and infant mortality rates. Intervention studies can be encouraged to address the independent predictors of maternal satisfaction like reasons for delivery visit, duration of labor, and mode of delivery.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Respectful Maternity Care. Maternal Health Task Force. 2014. Available from: https://www.mhtf.org/topics/respectful-maternity-care/. Accessed on 3 February 2018.
2. WHO. Prevention and elimination of disrespect and abuse during childbirth. WHO. Available from: http://www.who.int/reproductivehealth/topics/maternal_perinatal/statement-childbirth/en/. Accessed on 3 February 2018.
3. Devasenapathy N, George MS, Jerath SG, Singh A, Negandhi H, Alagh G, et al. Why women choose to give birth at home: a situational analysis from urban slums of Delhi. BMJ Open. 2014;4(5):e004401.
4. National Family Health Survey-4. Available from: http://rchiips.org/NFHS/factsheet_NFHS-4.shtml. Accessed on 3 February 2018.
5. Census of India Website: Office of the Registrar General and Census Commissioner, India. Available from: http://www.censusindia.gov.in/2011-Common/Sample_Registration_System.html. Accessed on 3 February 2018.
6. Mesfin Tafa RA. Maternal satisfaction with the delivery services in Assela Hospital, Arsi Zone, Oromia Region, Ethiopia, 2013. Gynecol Obstet. 2014;4(12).
7. Bitew K, Ayichiluhm M, Yimam K. Maternal satisfaction on delivery service and its associated factors among mothers who gave birth in public health facilities of Debre Markos Town, Northwest Ethiopia. Biomed Res Int. 2015;2015:460767.
8. Gandhi PA, Doley P, Balasubramanian T, Mishra A, Pardeshi G. Assessment of birth satisfaction among the women attending the immunization clinics in South Delhi: A cross-sectional study. CHRISMED J Health Res. 2020;7(3):212.
9. Taddese AA, Gashaye KT, Dagne H, Andualem Z. Maternal and partner's level of satisfaction on the delivery room service in University of Gondar Referral Hospital, northwest, Ethiopia: a comparative cross-sectional study. BMC Health Serv Res. 2020;20(1):233.

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