

Reproductive Health Behaviour in the direction of Pregnancy and Childbirth among the Kaibartas of Assam

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Abstract

Background: Pregnancy and childbirth are the very important events of women's reproductive health that requires intensive care. The present study aims to understand reproductive health behaviour associated with pregnancy and childbirth among the Kaibarta mothers from Lakhimpur and Dhemaji districts of Assam. The impact of maternal education on obstetrics health and care-seeking behaviour were also attempted to comprehend. Cross-sectional data were gathered from 306 ever-married Kaibarta mother. Specially designed pretested reproductive health schedule was used to collect data. BMI is considered to assess the nutritional status of the mother. The majority of Kaibarta mothers had experienced complications during pregnancy among which anaemia was most common. Irrespective of habitation, pregnancy complications are comparatively more common among underweight and overweight mothers. Mothers without any antenatal care had experienced higher pregnancy complications. Home deliveries with untrained traditional *dhai* are more frequent than institutional deliveries particularly among mothers aged 30 years and above. The positive impact of mother's education on every aspect of reproductive health has also been apparent. The study highlighted poor health and care-seeking behaviour of Kaibarta mothers due to multiple underscore causes. It is recommended proper health education among every mother to make them aware of maternal health issues and proper utilization of health care services.

Keywords: Reproductive health, Obstetric health, Pregnancy, Childbirth, Antenatal care.

Introduction

The reproductive health status of mother is considered as the most crucial part of general health and a central feature of human development. It is an important index to measure the quality of life of any society in the esteem of overall health condition as the health of a newborn baby and a family itself intensely depends on the ability of a mother. Thus, maternal and child health care is one of the basic imperative components under the concept of reproductive health.

The reproductive health situation in India is still not satisfactory, where mother's reproductive health is deeply bounded with lots of socio-cultural and economic factors. A large number of Indian mother suffer from reproductive health problems during the obstetric period and it is growing as a dormant epidemic, which in a true sense yet remains unknown. Mother inhabiting rural areas are still far away from the utilization of existing health care services and among them, maximum childbirth occurs at home .^[1] About

one-third of the total disease burden among mother aged 15 to 44 years in the developing countries is linked to reproductive health problems like pregnancy, childbirth, abortion, HIV, and reproductive tract infection.^[2] Heavy disease burden among mother of developing countries has been observed by several researchers.^[3,4,5]

Pregnancy is a vital and dynamic event in every woman's life. But sometimes it becomes perfidious to mother's life due to the lack of awareness and proper medical care particularly in India and other developing countries.^[6] The growth and development of foetus depend on the care received by the mother during pregnancy. Antenatal care of pregnant mother is highly mandatory for the proper growth and maturity of foetus. It is one of the important factors that have the proficiency to reduce maternal mortality and morbidity.^[7] A strong association between the rate of infant mortality and antenatal care is also apparent from a large scale community-based study in South Kanara district of Karnataka.^[8]

The basic objective of the study is to comprehend some aspects of reproductive health behaviour related to pregnancy and childbirth among the Kaibarta mother of Lakhimpur and Dhemaji districts of Assam. The study also attempted to inspect the association between maternal educations and care-seeking behaviour among the studied mother.

Material and methods

The present study was conducted among the Kaibarta mother inhabiting in three Kaibarta villages namely Deodubi village, Sonapur Number 2 village, and Sutimukh village. The first two villages belong to the Bordoloni block of the Dhemaji district and the other is situated in Paschim Dhakuakhana block of Lakhimpur District of Assam. Relevant data for the present study were collected from the 306 Kaibarta mother who has at least one child by using an especially designed schedule. An in-depth interview following the retrospective method has been applied for collecting data. The height and weight of the mother were measured with the help of anthropometer and portable weighing machine following standard anthropometric techniques of Lohman et al. (1988).^[9] Written consensus in local language from the respondents were taken regarding their participation and co-operation. BMI is considered to assess the nutritional status of the mother which is calculated as body weight in kilograms divided by height in meter squared. According to the BMI classification of WHO (2004) studied mothers were categorized as underweight, normal weight, overweight, and obese.^[10] The computer software Microsoft Office Excel 2007 was used for the analysis of data.

Kaibarta is an indigenous scheduled caste community of Assam. They constitute an important segment of the greater Assamese society. The Kaibarta are considered as the descendants of the earliest Dravidian. They are the staunch followers of neo-Vaishnavism propounded by Srimanta Sankardeva.

Results

Table 1 depicts the pregnancy complications experienced by ever-married Kaibarta mother under study. It is observed from the table that the highest percentage of pregnancy complication reported among the Kaibarta mothers inhabiting in Sonapur No 2 village (61.8%) followed by Sutimukh village (56.4%). In this regards the mothers of Deodubi village enjoyed relatively better health conditions with fairly fewer pregnancy complications (45.6%). Thus, the overall prevalence of pregnancy complications is quite high among the Kaibarta mothers (52.9 %).

Table 1: Pregnancy complication among the ever-married mother

Pregnancy complications	Deodubi Gaon	Sonapur No 2 Gaon	Sutimukh Gaon	Kaibarta
Yes	68 (45.6)	63 (61.8)	31 (56.4)	162 (52.9)
No	81 (54.4)	39 (38.3)	24 (43.6)	144 (47.06)
Total	149	102	55	306

Figures within parentheses indicate percentages

Table 2 reveals some of the pregnancy complications experienced by Kaibarta mothers under study. It is clear from the table that anaemia is the most commonly reported health complication among the mother in all the three studied villages. Its frequency is considerably higher than the other health complications and the highest percentage found among the mother of Deodubi village (55.9%) followed by the Sutimukh village (51.7%). The maximum frequency of mothers who have delivered low birth weight babies (19.05%) and experienced mal-position of the baby (15.8%) are recorded among the Kaibarta mother from Sonapur No 2 village. Swelling of the legs, body, or face (edema) is another most common pregnancy complication experienced by Kaibarta mother under study. The percentage of edema found to be highest among the Kaibarta mother from Sutimukh village (25.8%) followed by Sonapur No 2 village (23.9%) and Deodubi village (22.06%). On the other hand, though convulsion (not from fever) is recorded as a health ailment during pregnancy; its frequency is very limited. Only 3.2 percent of mother in Sonapur No 2 village has reported about it.

Table 2: Pregnancy complication according to the symptoms reported by the ever-married mother

Pregnancy complications	Name of the villages			Kaibarta (pooled)
	Deodubi Gaon	Sonapur No2 Gaon	Sutimukh Gaon	
Anaemia	38 (55.9)	24 (38.09)	16 (51.7)	78 (48.2)
Stunted growth	11 (16.2)	12 (19.05)	6 (19.4)	29 (17.9)
Mal-position of baby	4 (5.9)	10 (15.8)	1 (3.3)	15 (9.3)
Convulsion	-	2	-	2

		(3.2)		(1.3)
Edema	15 (22.06)	15 (23.9)	8 (25.8)	38 (23.5)
Total	68	63	31	162

Figures within parentheses indicate percentages

Table 3 reveals the pregnancy complication according to their nutritional status (BMI). It is observed that in Deodubi village, the highest frequency of pregnancy complications recorded among the underweight mothers, whereas the highest frequency of mothers with normal body weight (29.9%) have not experienced any pregnancy complications during the expecting period. In Sonapur No 2 village, the highest frequency of pregnancy complications found among overweight mothers (37.5%) followed by underweight mothers (27.55%). On the other hand, in Sutimukh village, comparatively higher incidence of pregnancy complication observed among normal-weight mothers (11.46%). It is apparent from the table that relatively higher frequency of pregnancy complications recorded among underweight Kaibarta mothers (62.3%) followed by overweight mothers (56.3%), whereas the majority of normal weight mothers (52.08%) have not experienced any pregnancy complications during pregnancy.

Table 3: Pregnancy complication according to nutritional status among the ever-married mother

Nutritional Status(BMI)	Pregnancy Complications						Kaibartas (Pooled)
	Deodubi Gaon		Sonapur No2 Gaon		Sutimukh Gaon		
	Yes	No	Yes	No	Yes	No	
Underweight	25 (25.51)	20 (20.5)	27 (27.55)	12 (12.25)	9 (9.19)	5 (5.1)	98
Normal weight	40 (20.83)	57 (29.9)	30 (15.62)	24 (12.5)	22 (11.46)	19 (9.9)	192
Overweight	3 (18.75)	4 (25.0)	6 (37.5)	3 (18.75)	-	-	16
Total	68	81	63	39	31	24	306

Figures within parentheses indicate percentages

Table 4 depicts the distribution of pregnancy complications according to the level of maternal education. Among the illiterate and primary level educated mothers more mothers having pregnancy complications than those who have not experienced any complication during pregnancy in all three villages. On the other hand, among higher secondary and graduate level educated mothers, the frequency of mothers who have not experienced any pregnancy complications during pregnancy is relatively higher than those who have experienced it.

Table 4: Pregnancy complication according to the level of maternal education

Educational Status	Pregnancy Complications						Kaibarta (Pooled)
	Deodubi Gaon		Sonapur No2 Gaon		Sutimukh Gaon		
	Yes	No	Yes	No	Yes	No	
Illiterate	15 (19.5)	12 (15.6)	25 (32.5)	9 (11.7)	10 (12.9)	6 (7.8)	77
Up to Primary	10 (17.3)	8 (13.8)	21 (36.3)	7 (12.07)	10 (17.3)	2 (3.5)	58

Up to High School	27 (29.7)	28 (30.8)	11 (12.09)	11 (12.09)	7 (7.7)	7 (7.7)	91
Higher Secondary	11 (16.2)	27 (39.8)	6 (8.9)	12 (17.7)	3 (4.5)	9 (13.3)	68
Graduate & above	5 (41.7)	6 (50.0)	-	-	1 (8.3)	-	12
Total	68	81	63	39	31	24	306

Figures within parentheses indicate percentages

Table 5 illustrates the pregnancy complications according to the utilization of antenatal care. It reveals that in all the three studied villages, relatively higher frequency of pregnancy complications found among those mothers who had not to seek any antenatal care during pregnancy (Deodubi = 61.8%, Sonapur No 2 = 71.4%, and Sutimukh = 60.0%).

Table 5: Pregnancy complications according to the utilization of antenatal care

Villages	Utilization of Antenatal care	Number of Mothers	Pregnancy Complications	
			Yes	No
Deodubi Gaon	Yes	115	47 (40.9)	68 (59.13)
	No	34	21 (61.8)	13 (38.24)
Sonapur No 2 Gaon	Yes	81	48 (59.3)	33 (40.7)
	No	21	15 (71.4)	6 (28.6)
Sutimukh Gaon	Yes	35	19 (54.29)	16 (45.7)
	No	20	12 (60.0)	8 (40.0)

Figures within parentheses indicate percentages

Table 6 demonstrates the health-seeking behaviour during pregnancy and childbirth among the ever-married Kaibarta mother under study. It is perceptible from the table that the Kaibarta mother from Deodubi and Sutimukh village primarily depends on the government hospital for their maternal health care. Although the mothers from Sonapur No 2 village seek treatment from government hospitals (33.33%), however, its frequency is comparatively less than those who have reported about the use of both government and traditional (43.14%) care to keep well health during pregnancy and childbirth. It is worthwhile to be mentioned here that, in general, the expectant mothers at first prefer to make use of locally available indigenous medicines from consistent sources and if it fails to alleviate the problem then only they visit a government hospital. Around 48.7 percent of Kaibarta mothers had relied on government hospitals to upkeep their health. A considerably higher proportion of mothers (34.3%) make the most of both governments/traditional treatment. Very less percentage of mothers seek treatment from a private nursing home (2.62%).

Table 6: Health seeking behaviour during pregnancy and childbirth among the ever-married mother

Healthcare deliveries	Number of Mothers			Kaibartas (Pooled)
	Deodubi Gaon	Sonapur No2 Gaon	Sutimukh Gaon	
Government	84 (56.38)	34 (33.33)	31 (56.37)	149 (48.7)
Private	4 (2.69)	3 (2.94)	1 (1.82)	8 (2.62)
Traditional	21 (14.09)	19 (18.63)	1 (1.82)	41 (13.4)
government /traditional	39 (26.18)	44 (43.14)	22 (40.0)	105 (34.32)
Government /private	1 (0.68)	2 (1.97)	-	3 (0.99)
Total	149	102	55	306

Figures within parentheses indicate percentages

Table 7 demonstrates about midwives attended at the time of childbirth among the Kaibarta mother under study. The number of a mother who was reported about medical assistance through the community health worker (which is well-known as ASHA workers) at the time of delivery is comparatively higher in Deodubi village (44.3%) followed by Sutimukh village (34.5% respectively). An almost equal proportion of mothers in both the villages reported about the assistance of traditional *dhai* in Deodubi (38.9%) and Sonapur village (38.2%) respectively. The frequency of mother reported about the assistance of ASHA during the delivery time is unfortunately very less in Sonapur No 2 village (18.6%). In this village majority of the mother have stated the attendance of traditional *dhai* (48.04%) at a delivery time followed by both traditional *dhai*/ASHA (28.4%). It is pragmatic from the table that overall enslavement on traditional *dhai* is quite higher (41.8%) followed by ASHA (33.9%) and both traditional *dhai*/ASHA (20.6%). Individual assistance of Auxiliary Nursing Midwives (ANM) at a delivery time is very less in studied villages (0.7%). Similarly, only 2.95 percent of mothers said about the assistance of both traditional *dhai* /ANM during the time of childbirth.

Table 7 : Birth attendants during childbirth among ever-married mother

Birth attendants	Number of Mothers			Kaibartas (Pooled)
	Deodubi Gaon	Sonapur Gaon	Sutimukh Gaon	
Accredited Social Health Activists(ASHA)	66 (44.3)	19 (18.6)	19 (34.5)	104 (33.9)
Auxiliary Nursing Midwives (ANM)	1 (0.7)	1 (0.9))	-	2 (0.7)
Traditional <i>dhai</i>	58 (38.9)	49 (48.04)	21 (38.2)	128 (41.8)
Both traditional <i>dhai</i> and ASHA	21 (14.09)	29 (28.4)	13 (23.6)	63 (20.6)
Traditional <i>dhai</i> and ANM	3	4	2	9

	(2.02)	(3.9)	(3.6)	(2.9)
Total	149	102	55	306

Figures within parentheses indicate percentages

Table 8 depicts the place of delivery and antenatal care received among the ever-married Kaibarta mother. It is clear from the table that in every studied village home deliveries are more frequent than the institutional deliveries (Government/ Private Nursing Home). Maximum home deliveries reported in the present study had not received any antenatal care during pregnancy, whereas in the case of institutional delivery it is found that a relatively higher proportion of mother has received antenatal care.

Table 8: Place of delivery and antenatal care received among the ever-married mother

Study Areas	Place of childbirth	Number of Live birth	Number of birth received antenatal care (%)	Number of birth without antenatal care (%)
Deodubi	Home	256	101 (39.5)	155 (60.5)
	Institutional deliveries(Government/ private Nursing Home)	150	141 (94.0)	9 (6.0)
Sonapur No 2 Gaon	Home	271	116 (42.8)	155 (57.2)
	Institutional deliveries(Government/ private Nursing Home)	53	51 (96.2)	2 (3.8)
Sutimukh Gaon	Home	154	63 (40.9)	91 (59.09)
	Institutional deliveries(Government/ private Nursing Home)	51	45 (88.2)	6 (11.8)
Kaibarta (Pooled)		935	517 (55.3)	418 (44.7)

Figures within parentheses indicate percentages

The utilization of antenatal care of the studied mother according to their level of education is presented in table 9. It is evident from the table that in every studied village the frequency of mothers who had utilized full antenatal care is significantly high among the graduate and higher secondary level educated mothers, whereas the maximum number of illiterate mothers had not received any antenatal care during pregnancy.

Table 9 : Utilization of antenatal immunization according to maternal education among the ever-married mother

Name of the villages	Utilization of Antenatal care	No of Mothers	Educational Status				
			Illiterate	Up to primary school	Up to High school	Up to Higher Secondary	Graduate and above

Deodubi Gaon	Yes	115	13 (48.2)	14 (77.8)	41 (74.5)	36 (94.7)	11 (100.0)
	No	34	14 (51.9)	4 (22.2)	14 (25.5)	2 (5.3)	-
Sonapur No 2 Gaon	Yes	81	22 (64.7)	22 (78.6)	20 (90.9)	17 (94.4)	-
	No	21	12 (35.3)	6 (21.4)	2 (9.09)	1 (5.6)	-
Sutimukh Gaon	Yes	35	5 (31.3)	7 (58.3)	11 (78.6)	11 (91.7)	1 (100.0)
	No	20	11 (68.8)	5 (41.7)	3 (21.4)	1 (8.3)	-
Kaibarta (Pooled)		306	77	58	91	68	12

Figures within parentheses indicate percentages

Distribution of dietary patterns during pregnancy according to maternal education has been shown in table 10. It is apparent from the table that the Kaibarta mother under study is not conscious about their health even during the time of pregnancy also. The highest number of mothers in all the three studied villages had not taken any preferred diet during pregnancy, they only eat usual food like the other family member used to take, and interestingly the majority of them are either illiterate or up to primary level educated mothers.

Regarding prescribed diet during pregnancy, it is observed that they consume some varieties of easily available fruits, milk, soaked chickpeas (brown) and garbanzo beans, green vegetables, etc., to improve the health condition. The number of such mothers is lesser than the others. Their frequency found to be highest among mothers having up to higher secondary and graduate-level education in all the studied villages. However, in Deodubi village its frequency is found to be less among the graduate mothers (63.6%) in comparison to mothers who are educated up to higher secondary level (78.9%).

In the present study, an attempt was also made to find out birth intervals based on maternal education. It is found that a comparatively higher frequency of illiterate mothers (72.7%) delivered their babies within short birth intervals (1-3 years). On the other hand, in the category of the birth interval like '4-6 years' (33.3%) and '7years & above' (8.3%), maximum frequency recorded among the graduate mothers. The majority of them also reported having a single child only.

Table 10 : Dietary pattern during pregnancy according to maternal education

Villages	Dietary habit during pregnancy	No of Mothers	Educational Status				
			Illiterate	Up to primary school	Up to High school	Up to Higher Secondary	Graduate & above
Deodubi Gaon	Prescribed Diet	71	4 (14.8)	3 (16.7)	27 (49.09)	30 (78.9)	7 (63.6)
	Usual Diet	78	23 (85.2)	15 (83.3)	28 (50.9)	8 (21.05)	4 (36.4)
Sonapur No 2 Gaon	Prescribed Diet	17	5 (14.7)	2 (7.2)	3 (13.6)	7 (38.9)	-

	Usual Diet	85	29 (85.3)	26 (92.9)	19 (86.4)	11 (61.1)	-
Sutimukh Gaon	Prescribed Diet	14	1 (6.3)	-	3 (21.4)	9 (75.0)	1 (100.0)
	Usual Diet	41	15 (93.8)	12 (100.0)	11 (78.6)	3 (25.0)	-

Figures within parentheses indicate percentages

Discussions

Every woman faces several minor health problems during pregnancy while unfortunately, some mother experienced serious complications during their pregnancy such as swelling of the legs, body or face (edema), convulsion (not from fever), anaemia, Mal-position of baby and delivery of underweight babies (less than 2500 grams), etc, which were attempted to report in the present study. The findings of the study show that as a whole more than half of the studied mother had experienced complications during pregnancy. Similar types of result were also reported among currently married mother aged 15-49 years.^[11] A mong Dibongiya Deori mother of upper Assam has also recorded the high frequency of pregnancy complications. Her study recorded maximum complication among overweight and underweight mothers which also corroborates with the present study.^[12]

It is observed that anaemia is the most frequently reported health problem during pregnancy (48.2%). One study that analysed the data of 2005-06 National Family Health Survey (NFHS) of India also highlighted the maximum concentration of anaemia among mother of Assam (72.0%) followed by Tripura (71.0%) which is undoubtedly more than the national average of 55.0 percent and the incidence of present study.^[13] The study also confirmed anaemia as the most common health issues during pregnancy among Indian mother which may be a result of a pitiable diet and cultural beliefs that follows throughout the period of pregnancy. Findings of the present study can be also correlates in this regards. Conventionality of the present study also found with another study conducted among the pregnant mothers attending ante-natal OPD units of GMCH Guwahati Assam also recorded high prevalence of anaemia during pregnancy.^[14]

The utilization of antenatal care also impacts the maternal health condition of pregnant mothers. The present study reveals the maximum frequency of pregnancy complications among mothers who had not received prenatal healthcare during pregnancy. A close relationship between antenatal care and the delivery place has also apparent from the present study. Highest number of mothers opted home deliveries had not received any antenatal care during pregnancy but in the case of institutional delivery, a relatively higher proportion of mother has received antenatal care. The study conducted in rural areas of north-eastern states has also assured these types of alliance and demonstrated that mothers who received no antenatal care were more likely to have home births.^[15]

Maximum childbirth occurred at home (72.84%) with the help of untrained traditional *dhai*, though its frequency is quite high among mothers aged 30 years and above. Dependency on traditional healing system is also strong among them, they were reported that government hospital is far away from the villages and

facilities are also not satisfactory. Apart from the transportation problem, their socio-economic conditions are also an important reason. However, a contradictory result has been apparent from the study carried out on factors affecting maternal health care seeking behaviour in Northeast states that reveals an equal proportion of delivery conducted at home and public health facility in comparison with a private health facility.^[16]

Female educations have a great influence on maternal and child health as it enhances the knowledge and skills of the mother concerning the age at marriage, conception, nutrition, prevention, and treatment of diseases.^[17] It has a strong potentiality to change mother's beliefs and attitudes towards health and diseases. The positive impact of mother's education on institutional delivery and antenatal care is also apparent in the present study. Relatively high occurrence of pregnancy complications reported among illiterate mothers (30.9%) whereas the minimum is found among graduate-level educated mothers (3.8%). Apart from it, in every aspect of reproductive health recorded in the present study such as the utilization of antenatal care, intake of prescribed diet during pregnancy and long birth intervals with minimum number child, etc., found to be comparatively higher among educated mothers. The advantageous impact of mothers' education on maternal healthcare is reported by various scholars^[18-24] whose findings illustrates conformity with the present study.

Conclusion

It can be concluded that for improving the health status of the mother, they should be responsive to their health care needs. Illiterate and mother with less education are found to be more susceptible to health complications during pregnancy. It may be due to the lack of knowledge and awareness regarding complications that limit the utilization of antenatal care services. Prenatal health care is of utmost essential to minimize the prospect of numerous difficulties related to pregnancy and childbirth. It is observed that expectant mothers preferred to take treatment when health condition became serious and impact household activities. Thus, the mother should be a counsel with proper health education so that they utilized accurate health care services not only during the antenatal period but also in other health issues as soon as possible.

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