



A Study on Child Care among the Nepali Kshattriyas of Sonitpur District-Assam, India

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ABSTRACT

The present study on Child care among the Nepali Kshattriyas of Sonitpur District, Assam, India was undertaken with the following objectives 1). To find out how much care, what type of care is given to the women during pregnancy and after delivery 2). To find out the restrictions of movement during pregnancy, restriction in food, pregnancy feast and other behaviour of pregnant women 3). To find out the different types of experiences in physical and social environment after birth. The materials for the present study were collected from one ethnic group namely the Nepali Kshattriya population. The data was collected from two villages namely Shitalmari and Borbhogia which are exclusively inhabited by the Nepali Kshattriya population of Sonitpur district, Assam. A total of 305 households from two different villages were selected. The data were mainly collected by house to house survey. The findings of the study found that none of the family ever used to practice the modern pregnancy diagnosis test but they rely on their own diagnosis. Practice of avoiding certain acts and place was common in case of pregnancy care. 23% of pregnant women consumed extra intake of food, others were not consumed and not concerned about maintaining a balanced diet. They were engaged in domestic household works during the antenatal period. Almost half of the respondents (46.75%) had not check-ups during the pre-natal period. Maximum birth took place at home. Care after birth was adequate according to the need of the mother. The mother and her child care are considered polluted for at least 22 days after delivery. The mother is debarred from her usual work. The rest after delivery was seen in the entire household. The study showed that people gave special care in the diet of a lactating mother and not restriction of food after delivery.

Keywords: Child care, Pregnant women, Antenatal period, Feeding

INTRODUCTION

Child care is a proximate determinant of child growth. Child care has received important attention in recent years. Care is defined as the behaviours and practices of care givers (mother, siblings, and father and child care providers) to provide the food, health care, stimulation and emotional support i.e. necessary for children's healthy survival, growth and development [1]. Child care involves an array of activities with varying time inputs. In order to understand the regime of childcare properly and to make a list of caring activities, it has been included in the focus group discussions about various caring activities. One of the main functions of the family has been procreation and rearing of children [2]. Child rearing practices include care during pregnancy, and lactation, care of the new born, feeding, weaning, toilet training, health care, clothing, socialization, recreation, education of children [3]. The components of child care such as feeding, cooking meals, toilet training, bathing, washing clothes, changing their clothes, playing, carrying, taking children to health care centres, assisting children in studies, making children sleep, overall supervision of all caring activities done by others, all these activities require time inputs [4]. This study discusses some of the child care activities among the Nepali Kshattriyas of Sonitpur District, Assam.

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Objectives of the Study

This study makes an attempt to focus on the “Child care” among the Nepali Kshattriya children of Sonitpur District- Assam, India. The objectives of the present study are given below-

- To find out how much care, what type of care is given to the women during pregnancy and after delivery? It tries to find out the antenatal and post-natal care taken by the pregnant women.
- To find out the restriction of movement during pregnancy, restriction in food, pregnancy feast and other behaviour of pregnant women.
- To find out the different types of experiences in physical and social environment after birth.

MATERIALS AND METHODS

The materials for the present study were collected for one ethnic group namely the Nepali Kshattriya population. The data was collected from two Nepali villages namely Shitalmari and Borbhogia of Sonitpur district, Assam. These villages are exclusively inhabited by the Nepali Kshattriya population. A total of 305 households from two different villages were selected.

All the mothers of 305 households were interviewed exclusively to know about the child care and the state of pregnancy. Beliefs associated with pregnancy, birth and restriction were observed. The data were mainly collected by house to house survey.

To focus certain situations, case study technique was applied. In the present study, this technique has been used in certain situations which need special emphasis. A pregnant mother might have experienced certain abnormalities and taken certain measures. Regarding breast feeding, some kind of rituals is observed and full descriptions are needed in such cases. Hence the case history is considered as vivid description of a particular person, about something. So, case study method has been applied to represent such situations.

RESULTS AND DISCUSSION

Pregnancy

Among the Nepali Kshattriya population, conception is a good sign and they think it to be a natural process. Women of the village usually rely on their own diagnosis for knowing about pregnancy. Amongst them absence of periods, feeling of hotness, vomiting, greed for sour food are the key symptoms of being pregnant. None of the family ever uses to practice the modern pregnancy diagnosis test [5-6].

Prohibited act and common belief against the prohibition

In case of pregnancy care it is seen that practice of avoiding certain acts and physical space is common. A large number of women in these villages mentioned that killing of birds and animals is a prohibited act. Similarly, a pregnant woman is not allowed to go alone to the river side and outside in the evening, visiting the house of a deceased or a burial place were reported as taboos by many respondents, whereas, good number of Nepali women give stress on proper behaviour/conduct of a woman in the prepartum period. For them, telling lies is forbidden both for the husband and wife. The belief behind these restrictions is primarily the welfare of the baby in the womb. Some people (27%) believe that if they kill birds or animals these would make mother physically handicapped when child will be born and it may lead to still birth.

Special food during pregnancy and restriction of food

In respect of special diet during their pregnancy period, the data bring out the fact that in large number of cases no attention is given to the diet of a pregnant mother [7]. The poor socio-economic condition of the Nepali village women is the reason for not taking much nutritive food during pre and post-natal period. Few respondents (23%) reported that they consumed extra intake of food when they were pregnant. Special diets in these cases mainly included excessive quantity of milk and fresh fish. Most of the Nepali households provide rice, green leafy vegetables, pulses, milk, egg etc. to pregnant women. They usually take three meals a day. They are not concerned about maintaining a balanced diet during pregnancy. There is a common belief among the Nepali Kshattriya women that the mother should avoid eating more during pregnancy so as to have a baby of manageable size and thus minimize the risk of a difficult labour and also expect that if the mother takes large amount of food during pregnancy then it may lead to increase weight gains by the mother and the baby within.

During pregnancy period an expectant mother of a Nepali Kshattriya family usually takes her normal diet [8]. But some of them have reported that they do not eat *Borali* fish, water gourd (*Komora*). Because there is a belief that if they consume *Komora* during the pregnancy period then their face will be swallowing. Few Nepali women reported that they did not consume ridge-gourd (*Jika*), duck meat and sheep meat, but they were not aware about such prohibitions.

Restriction of movement

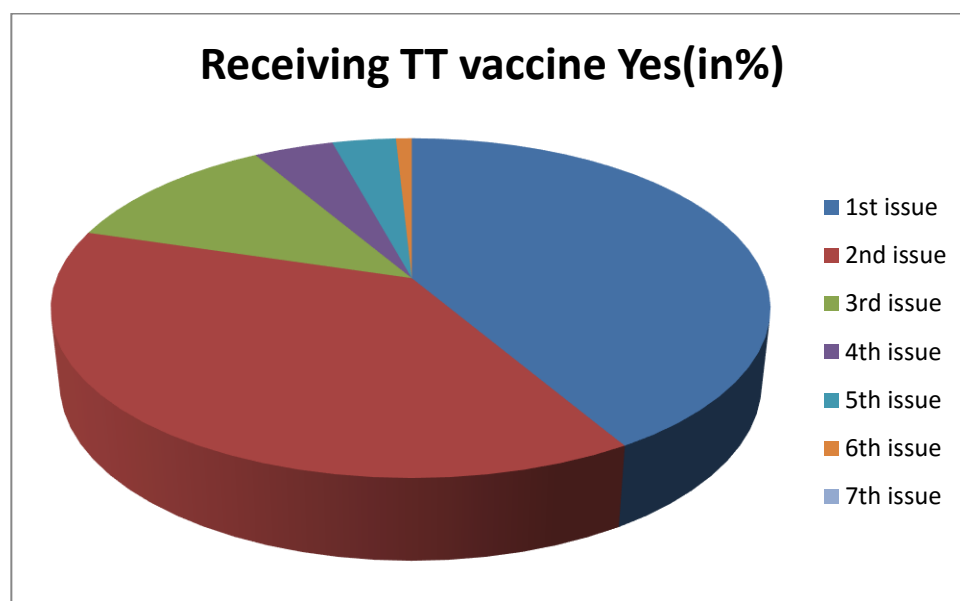
It is evident from the data that in the villages it was common for a woman to continue with her normal domestic work schedule till her health can allow. Those household tasks which are quite strenuous in nature such as carrying heavy weight things, working in the field, pounding rice, drawing water from the well etc. are carried out only in some nuclear type of families whose economic condition is not at all good, women have no option but to work. Only when there is some health problem or they are unable to work, other extend help. Few of the women are taking rest most of the time during advance stage of their pregnancy, hence they are not required to do hard work.

Pre-natal check-ups during pregnancy

The concept of pre-natal check-ups for pregnant women was not felt necessary among the Nepali women even a few years back [9-10]. But now-a-days some of the women have felt that pre-natal check-up for the pregnant women is necessary for maintenance of good health of both the baby and the mother. Table 1 and Figure 1 to 4 show the sources of prenatal check-up and receiving T.T. vaccine during pregnancy. Previously the concept of prenatal check-ups was totally absent among the Nepali women of these villages. Any kind of problem when arises during the pre-natal period they mainly used to consult “bez” for relief. Table 1 show that in general, almost half of the respondents of the villages reported that they had not check-ups during the pre-natal period of their pregnancy (46.75 % of the total respondent). From the Table 1 it was found that from 1st issue to 3rd issue, the pregnant women went either to the health centre or to the private doctors’ chamber. From 5th issue to 7th issue the village women went only to the health centre. Most of them go to the health centre for pre-natal check-up due to cheaper cost or free of cost and it is easy to go to the health centre because the health centre is situated nearby the village. Majority of them do not like to go to the private doctor because it is expensive and also due to communication problem, as the private doctor’s chamber is situated in the town at a distance of more than 14 kilo meters.

Table 1: Distribution of women according to their sources of prenatal check-ups

Sl. No.	Sequence of issue		Prenatal check-up					
			Health centre		Private Doctor		Not applicable	
			No	%	No	%	No	%
1	1 st issue	Male	40	43.01	7	58.33	28	31.82
		Female	32	35.55	5	50.00	29	31.52
2	2 nd issue	Male	35	37.63	3	25.00	28	31.82
		Female	23	25.56	3	30.00	20	21.74
3	3 rd issue	Male	11	11.83	2	16.67	16	18.18
		Female	16	17.78	1	10.00	20	21.74
4	4 th issue	Male	3	3.23	Nil	-	6	6.82
		Female	10	11.11	1	10.00	10	10.87
5	5 th issue	Male	2	2.15	Nil	-	7	7.95
		Female	6	6.67	-	-	10	10.87
6	6 th issue	Male	2	2.15	Nil	-	1	1.14
		Female	2	2.22	-	-	2	2.17
7	7 th issue	Male	0	Nil	Nil	-	2	2.27
		Female	1	1.11	-	-	1	1.09
8	Total	Male	93	100.00	12	100.00	88	100.00
		Female	90	100.00	10	100.00	92	100.00

**Figure 1: Distribution of women according to their receiving of TT vaccine (Yes) in case of male child**

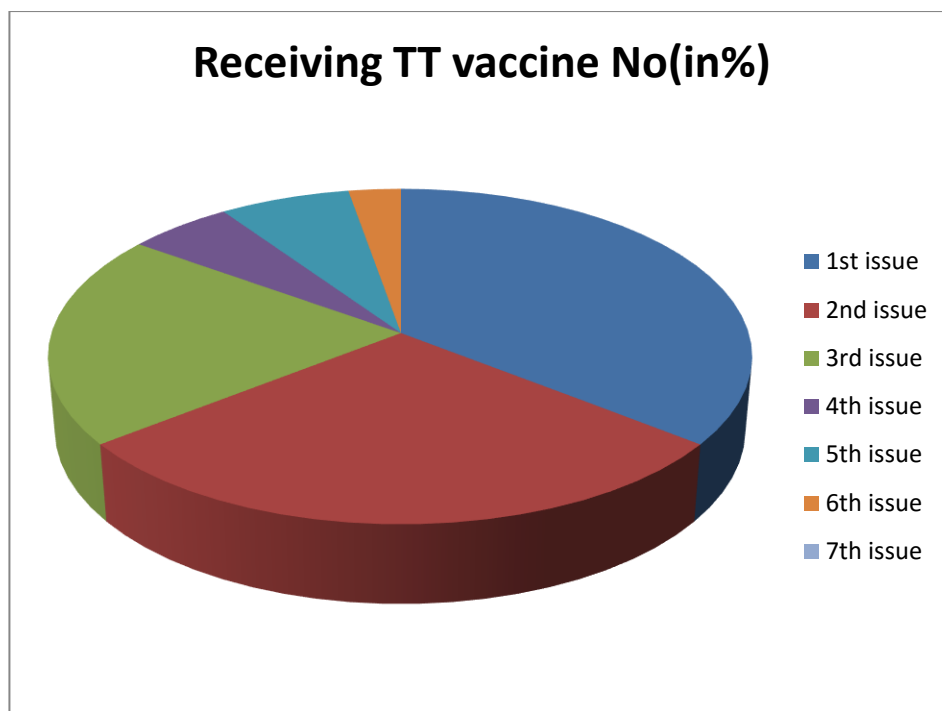


Figure 2: Distribution of women according to their receiving of TT vaccine (No) in case of male child

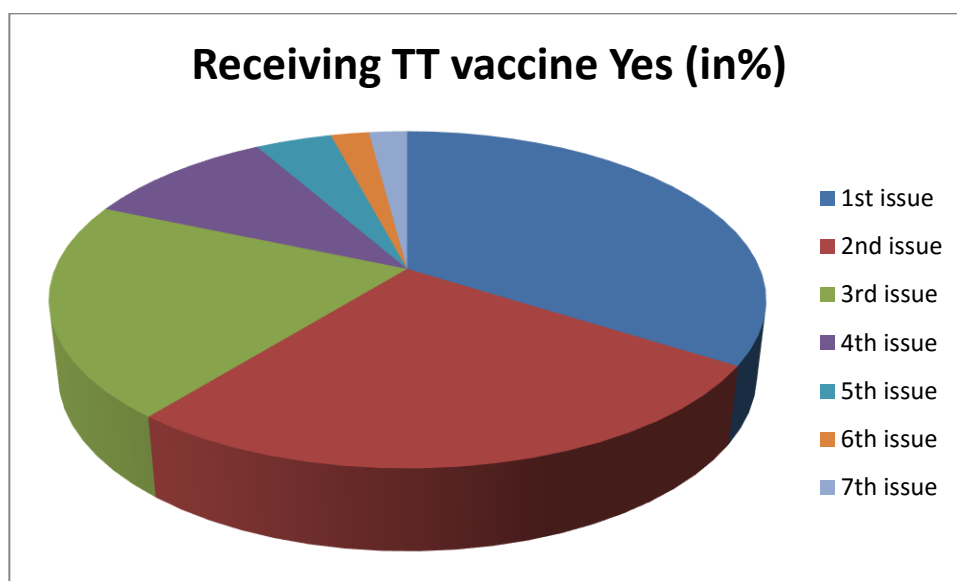


Figure 3: Distribution of women according to their receiving of TT vaccine (Yes)in case of female child

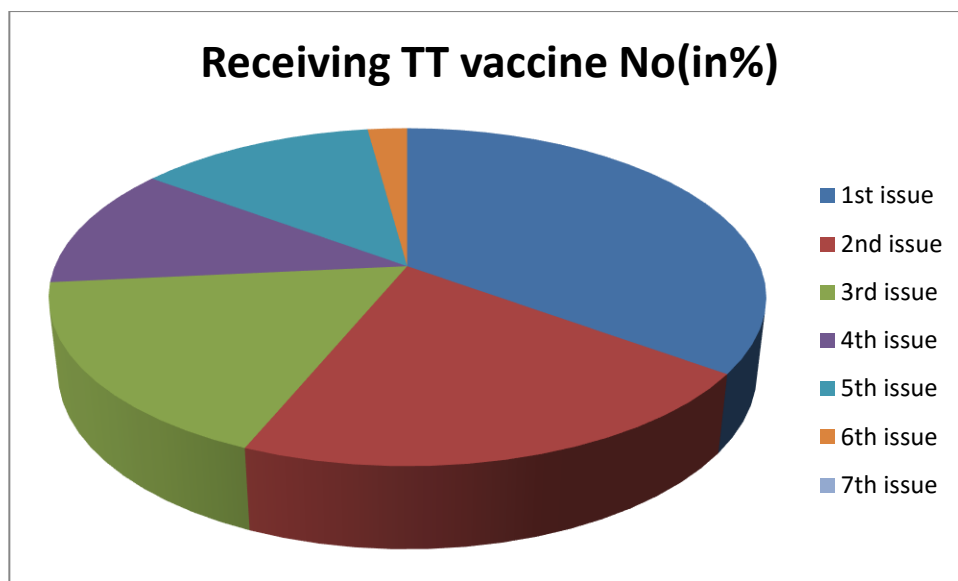


Figure 4: Distribution of women according to their receiving of TT vaccine (No) in case of female child

In case of receiving T.T. vaccine maximum number of respondents had taken T.T. vaccine and in case of male children 38.86% and 49.48% of female children had not taken T.T. vaccine. It was observed that some of the pregnant women went for pre-natal check-ups, but they had taken the T.T. vaccine for immunization in the nearby pharmacy or at home. Most of them did not consume iron tablets; some of them did not complete even the whole course. Many of the women are not interested to purchase iron tablets from the open market mainly for their poor economic condition and lack of awareness regarding the need of iron tablets supplementation during pregnancy. Most of the cases weighing of the pregnant mother were not done; only 20 percent respondents had done their weighing. Majority of the women took the vaccine only for the 1st and 2nd issue. But it was observed that in case of subsequent issues they did not show much interest.

Health status of pregnant women

Some of the pregnancy related problems found among the villagers are vomiting, drowsiness, swelling in the foot, high blood pressure, anaemia which is more common, lack of appetite, back pain etc. From the Figure 5 it is observed that 46.56 % mothers facing the problem of vomiting and other related diseases followed by the non-vomiting 30.49 % only 22.95 % mothers reported that they had other diseases during pregnancy period.

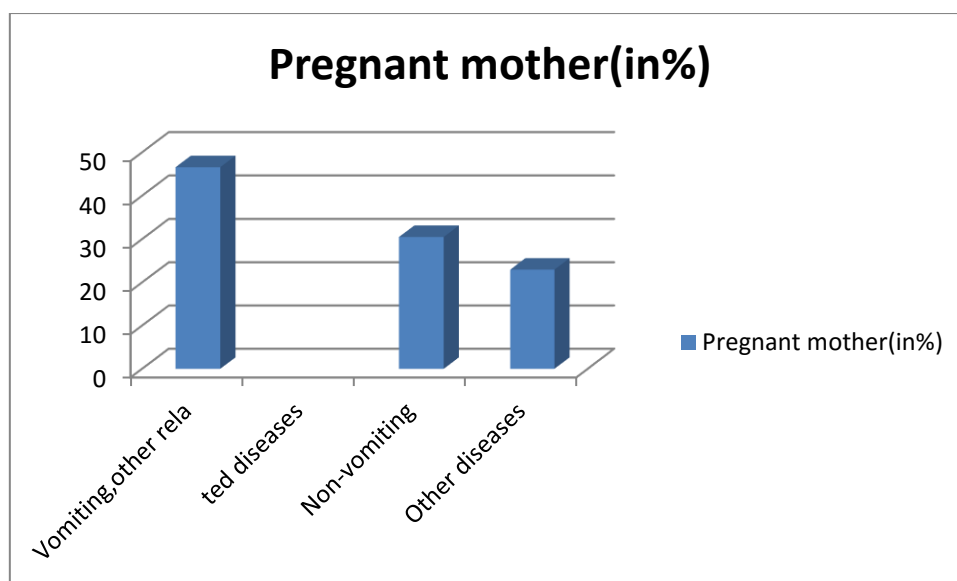


Figure 5: Distribution of women according to the state of health of pregnant mothers

During investigation, one mother reported that her only male child was born before the time. The case is described below:

Case 1

- (1) Name of the informant : Mrs. Madhu Devi
- (2) Age : 27 years
- (3) Educational Status : Graduate
- (4) Occupational Status : Teacher
- (5) Annual income : 1 lac and 20 thousand only
- (6) Type of family : Joint family
- (7) Size of family : 6 Members
- (8) Number of children : One (boy)

Madhu Devi is a housewife of 27 years old. During investigation she reported that in the 7th month of her pregnancy, she was going to her mother's home. After few hours she felt very much pain in the abdomen and her health condition became critical. Immediately, she went to the private nursing home and gave birth to a male child by caesarean delivery. She told that the condition of the road was not good. While going to her mother's home on the motor cycle, it was jumping and the distance of the road was 30 kilometers.

Nepali Kshatriya women are basically engaged in domestic household works during the antenatal period. They believe that to keep the circulation of blood normal, a pregnant woman should remain active. Most of the Nepali women do simple household work during the post-natal period of pregnancy, some of them do work if their health allows and only few women reported that they took rest during the postnatal period. A few elderly women said that if the pregnant women do work during her period of pregnancy, then delivery will be normal. As nuclear family predominates among the Nepali Kshatriya, the pregnant women are bound to perform their daily activities regularly

Venue of delivery and birth attendants

Place of delivery is one of the most important factors affecting maternal health. During the present investigations it has been recorded that maximum birth took place at home, the number of which is

81 (41.97%) in case of males and 121 (63.02%) in case of females. Only 110 (28.57%) delivery took place at Govt. civil Hospital. Again 52 male and 21 female children were born at private nursing homes of different places which are mainly situated at Dhekiajuli (Sewa Niwas Hospital of J.J. Nursing Home or Nath Clinic or Debraj people clinic) and Tezpur (Ananta Memorial Hospital or E.M.M. Hospital and Research Centre or Sukhada Nursing Home). It was observed that if the pregnant mother's condition is very critical then she is admitted to the private nursing home. Otherwise they are admitted in the Govt. Hospital. Majority of the villagers belong to the low-economic status; therefore, they prefer home delivery. They think home delivery is the best for them whether it is a nuclear family or joint family. If a particular family required doctor during home delivery, in that situation sometimes doctor and nurse went to the respective family. It was seen that the normal home delivery in the joint family seem to be better than under nuclear family due to the presence of elderly women.

Table 4: Distribution of venue of delivery according to sex

Sl. No.	Place of Birth	Sex			
		Male		Female	
		No.	%	No.	%
1	Private Nursing Home	52	26.94	21	10.94
2	Hospital	60	31.09	50	26.04
	Home	81	41.97	121	63.02
4	Total	193	100.00	192	100.00

Removal and disposition of umbilical cord

For the present study, it was reported that if the baby was born in hospital or private nursing home then in that case, the nurse cut the umbilical cord with the help of a scissor and in case of home delivery, they used blade by themselves or with the help of experienced village women. After parturition, the placenta is buried deeply in the underground within the boundary wall by the household. The placenta is carefully buried. There is a belief of the Nepali Kshatriya people that if the placenta is not buried carefully, then the baby will face some health-related problems during growing stage.

Social environment after birth

In naming a child, particular ceremony is followed by the Nepali Kshatriya people who are described earlier. Opposite scenario was seen in Raute community in Nepal where there was no pollution connected to child birth, nor do they perform name giving ceremony. The religious rites are performed by the villagers is Nawaran or namakaran. After the child birth generally in the eleventh day, they do Nawaran or namakaran with the help of a priest. In this ritual Hawan of rice, til (gingelly seed) and ghee are done in the pedestal of the *agnisthapana* established by the priest. Then the priest gives the name of the child. Therefore, the child is named on the eleventh day after the birth. Though they performed Nawaran after 11 days yet, the last main purificatory ritual is performed after one month with the help of a priest. They do not celebrate any type of function for name giving or after one month of purification.

Period of pollution

After the child birth, generally the isolation of mother and the child was seen in almost all the houses in case of home-delivery. The main reason for immediately isolating the mother and the new born from the rest of the household after child birth is because of the impurity and polluting effects of child birth, which is believed to be dirty, defiling and contaminating. The women of the studied

village said that they believed in ritual pollution after child birth, but in their household they practise isolation and segregation of the new born and the mother primarily to keep them away from infections.

It is traditional among the Kshatriya Nepali population, where the woman and her child are considered polluted for at least 22 days after delivery. The family members during this time are prohibited to participate in any religious function of neighbourhood. The family can't observe a religious rite until the pollution period is over. The ritual of purification is done by the priest. They do not celebrate any function. Therefore, till that time a mother is considered as polluted. During that period crops are also not taken out from the granary.

Period of rest after delivery

The rest after delivery is seen in all the households in the studied villages. During this period of pollution, the woman does not do her household normal duty whether it may be nuclear or joint family.

Diet after delivery

In case of lactating mother, the data from the studied village shows that people give special attention to the diet of a lactating mother. The span of this giving special care in the diet is usually one month. For enhancement of milk production, only 20% reported that they eat *joni guti* (a kind of masala) in their diet. There is not restriction of food after delivery. Lactating women want to eat all nutritious diet. But majority of them belonged to the low-economic status. Therefore, they did not afford to buy meat, fish, fruit etc. regularly. Due to the available production of vegetable in their kitchen-garden, they need not worry about the requirement of vegetable.

After delivery special care is taken to provide those food items which are considered suitable for a mother. Usually they consume milk and its products, fish, meat, ghee, different types of vegetables in their diet according to the availability of food. They believed that these food items increase the quantity of breast milk and improve their health.

Medical help after delivery

70%-80% of the village women reported that they did not require any medical help after delivery due to their good health and those who had some complicity at the time of delivery were in need of a medical treatment and generally medicines and salines were given at home or in the nearby hospital of Dhekiajuli or Tezpur. One case regarding this is given below:

Case 2

- | | |
|---------------------------|------------------|
| (1) Name of the informant | : Mrs. Maya Devi |
| (2) Age | : 27 years |
| (3) Educational Status | : IX passed |
| (4) Occupational Status | : Housewife |
| (5) Annual income | : 90,000/- |
| (6) Type of family | : Joint family |
| (7) Size of family | : 5 members |
| (8) Number of children | : One (girl) |

Maya Devi is a housewife. She has only one child of 1 year old. It was a normal hospital delivery. After the birth of her child she had required medical help due to gastrointestinal problem and cold fever. At that time, she was very weak and unable to move even alone. Doctor checked her health condition and prescribed medicine and saline. After some days she was cured. She did not feel any

trouble and slowly she became an active woman. Doctor released her from the hospital. She also gave thanks to the doctor and hospital staff. Then she came to her house with her new born child.

Infant care, rites and rituals

70% women of the Nepali villages learnt about handling of baby for the first time from mother followed by mother-in-law who are staying in the same house, a few (18%) reported that they learnt from sister or sister-in-law and also a few number (12%) reported that they learnt about handling of baby for the first time from nurse. However, in this case, the baby was born in the hospital or private nursing home. Although, fathers, elder sister and grandparents make a contribution to infant care, the mother assumes the main responsibility for the infant, at least while it is breastfed, because family members are separated during the day-time to work in different areas. They performed only “nauran” as rites and rituals on the 11th day of new born baby. This was described earlier. This is the first ceremony in the baby’s life. One case of name giving ceremony is described below:

Case 3

- | | |
|---------------------------|-------------------------------------|
| (1) Name of the informant | : Mrs. Pabitra Devi |
| (2) Age | : 32 years |
| (3) Educational Status | : IX passed |
| (4) Occupational Status | : Housewife |
| (5) Annual income | : 36,000/- |
| (6) Type of family | : Nuclear |
| (7) Size of family | : 5 members |
| (8) Number of children | : 3 children (two girl and one boy) |

Pabitra Devi (32) said that she gave birth to a male child one and a half years ago. It was a normal hospital delivery. He was very good looking at that time. After 10 days of the new born baby i.e. 11th day, the name giving ceremony (nauran) was observed with the help of a priest and after that his parents, friends and relatives called him by the new name i.e. “Yuvaraj”. She also said that every family in their village observed name giving ceremony i.e. nauran.

There is no cultural belief after delivery in the sample villages.

Miscarriage

In the present study 15 numbers of miscarriages were found in the studied community. Miscarriage is a case of loss of fetus due to untimely and abnormal delivery before maturity. On the other hand, giving birth of a dead child is known as still birth. Only one case of still birth was observed among them. The case of still birth is described below:

Case 4

- | | |
|---------------------------|---------------------------------|
| (1) Name of the informant | : Mrs Rekha Devi |
| (2) Age | : 42 years |
| (3) Educational Status | : Under matric |
| (4) Occupational Status | : Housewife |
| (5) Annual income | : 80,000/- |
| (6) Type of family | : Nuclear |
| (7) Size of family | : 6 Members |
| (8) Number of children | : 4 children (3 boy and 1 girl) |

Rekha Devi (42) said, "Our food is cooked by me. My husband helped me in domestic works after six months of pregnancy. We did not have any helper for doing domestic work and my 1st baby was very young one. One day while I was sweeping in our home I felt very much tired, uncomfortable and pain in the abdomen. Immediately, I went to bed and after a few minutes, a dead girl child was born. I was feeling very unlucky at that time and I did not know the reason behind this. This was my 2nd issue. After that we have three children. And I am very happy now.

CONCLUSION

In all family's young children are nurtured, protected and then other needs are fulfilled by their parents and other family members. Among the agencies which shape and influence personality and behaviour of the child during the early years of life, the role of the family is most important. One of the main functions of the family has been procreation and rearing of children. Family plays an important role since during this early period the child's interactions are intensively and intimately confined to the members of its family. These interactions express parents' attitudes, interest, beliefs and values in taking care and training of their children. The aim of child rearing is to develop in the child, the capacity for adjustment as prescribed by the cultural system to which the child belongs.

The study had focused on the diagnosis for knowing about pregnancy and found that none of the family ever used to practise the modern pregnancy diagnosis test but they rely on their own diagnosis for knowing about pregnancy. The study shows that practice of avoiding certain acts and place was common in case of pregnancy care. The belief behind these restrictions was primarily the welfare of the baby in the womb. The study shows that 23% of Kshattriya Nepali pregnant women consumed extra intake of food, others were not consumed. They were not concerned about maintaining a balanced diet during pregnancy and usually took her normal diet, but it was observed that pregnant women were basically engaged in domestic household works during the antenatal period. Only a few women reported that they took rest during the post-natal period. As nuclear family predominates among the Kshattriya Nepali people in the studied area, the pregnant women were bound to perform their daily activities regularly

Pre-natal care mainly deals with the care of the mother before the delivery. It was observed that the concept of pre-natal check-ups for pregnant women was not felt necessary among the Kshattriya Nepali women even a few years back. But now-a-days some of the women have felt that pre-natal check-up for the pregnant women is necessary for maintenance of good health of both the baby and the mother. Those women who had undergone pre-natal check-ups had consulted either local health centre or private doctor or ASHA worker. Almost half of the respondents (46.75 %) of the studied area reported that they had not check-up during the pre-natal period of their pregnancy. Remaining respondents were gone either to the health centre or to the private doctor's chamber in case of 1st issue to 4th issue. From 5th issue to 7th issue the village women went only to the health centre. Regarding T.T. vaccine, maximum number of respondents had taken T.T. vaccine. Most of the respondent did not consume iron tablets, some of them did not complete even the whole course and only 20% respondents had done their weighing. The study on health status of pregnant mother showed that 46.56% mothers facing the problem of vomiting and other related diseases followed by the non-vomiting (30.49%). It had been recorded that maximum birth took place at home (i.e. male 41.97%, female 63.02%) followed by the Govt. Civil Hospital. 70% -80% of the Kshattriya Nepali women reported that they did not require any medical help after delivery and those who had some complicity at the time of delivery were in need of a medical treatment and generally medicines and saline were given at home or in the nearby hospital of Dhekiajuli or Tezpur. The study showed that care after birth was adequate according to the need of the mother. It is traditional among the Kshattriya Nepali population, where the woman and her child care are considered polluted for at least 22 days after delivery. The mother is debarred from her usual work. The rest after delivery was

seen in the entire household in the studied area. The data showed that people gave special care in the diet of a lactating mother. There was not restriction of food after delivery

REFERENCES

1. Shonkoff JP, Richter L, van der Gaag J, Bhutta ZA. An integrated scientific framework for child survival and early childhood development. *Pediatrics*. 2012 Feb 1;129(2):e460-72.
2. Okan O, Lopes E, Bollweg TM, Bröder J, Messer M, Bruland D, Bond E, Carvalho GS, Sørensen K, Saboga-Nunes L, Levin-Zamir D. Generic health literacy measurement instruments for children and adolescents: a systematic review of the literature. *BMC Public Health*. 2018 Dec 1;18(1):166.
3. Kaphle S, Hancock H, Newman LA. Childbirth traditions and cultural perceptions of safety in Nepal: critical spaces to ensure the survival of mothers and newborns in remote mountain villages. *Midwifery*. 2013 Oct 1;29(10):1173-81.
4. Barnett S, Azad K, Barua S, Mridha M, Abrar M, Rego A, Khan A, Flatman D, Costello A. Maternal and newborn-care practices during pregnancy, childbirth, and the postnatal period: a comparison in three rural districts in Bangladesh. *Journal of health, population, and nutrition*. 2006 Dec;24(4):394.
5. Artal R, O'toole M. Guidelines of the American College of Obstetricians and Gynecologists for exercise during pregnancy and the postpartum period. *British journal of sports medicine*. 2003 Feb 1;37(1):6-12.
6. Nuriel-Ohayon M, Neuman H, Koren O. Microbial changes during pregnancy, birth, and infancy. *Frontiers in microbiology*. 2016 Jul 14;7:1031.
7. Woodruff TJ, Zota AR, Schwartz JM. Environmental chemicals in pregnant women in the United States: NHANES 2003–2004. *Environmental health perspectives*. 2011 Jun;119(6):878-85.
8. Sjöström K, Valentin L, Thelin T, Maršál K. Maternal anxiety in late pregnancy: effect on fetal movements and fetal heart rate. *Early human development*. 2002 Apr 1;67(1-2):87-100.
9. Delpeuch F, Traissac P, Martin-Prével Y, Massamba JP, Maire B. Economic crisis and malnutrition: socioeconomic determinants of anthropometric status of preschool children and their mothers in an African urban area. *Public health nutrition*. 2000 Mar;3(1):39-47.
10. Vora KS, Mavalankar DV, Ramani KV, Upadhyaya M, Sharma B, Iyengar S, Gupta V, Iyengar K. Maternal health situation in India: a case study. *Journal of health, population, and nutrition*. 2009 Apr;27(2):184.