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Correlation between Health and Hygiene of Women during Pregnancy and after Childbirth with Infant Mortality: Social Stereotypes and Changing Circumstances in Colonial Bengal (1870-1950)

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Abstract

Apart from being mother and wife, women in Bengal during 19th and 20th century had to play the most expected role of motherhood which was later symbolized by identifying the country as a mother itself- molding a political connotation during nationalist movements of *Swadeshi* and Noncooperation. Though this role of motherhood was worshipped and respected in the name of reserving tradition, culture and freedom of the nation from British domination; the mother herself went through the struggle of social expected gender roles and the sickle of traditional bondage of patriarchy. Pregnancy and the process of child birth were considered impure in religious and traditional believes, thus the status of being pregnant was more to deal with. Thoughts of the consequence of delivering a female child instead of social expected male child led to pass this period with anxieties and worries for women. However, these worries and anxieties during prenatal and postnatal period hadn't become a matter of worth concern until the infant mortality rate showed its alarming phase by the late decades of the ninetieth century; in consequence, a relation between these two was established. Since changes were not made in a day; the questions such as how a part of educated class accelerated this process of reformation, reactions from mass people, the careful role played by the Government and its inclusive departments regarding health and legislative bodies- passing acts yet delaying to enforce them, the role of educated women community, aspects of redefined motherhood and questions as such are to be thoroughly observed in this paper.

Introduction

Regardless of class, caste or religion, women of Bengal experienced the colonial domination in following ways mostly- 1. For the sake of the protection of colonial tradition, 2. For having the patriarchal mindset of colonial societies. In Eastern part of Bengal where Muslims were majority, they observed religious and traditional 'responsibility' over their 'Begums'(wives) even more than other communities as their position being defeated party against colonial power. Fatima Mernissi explained this connection as that most Muslim societies had to undergo through the colonial changes and who hadn't coped with these competent political, social and economical changes quite along; had guarded their women more desirously than before in the name of restoring own tradition (Mernissi 19). Thus ideal site of tradition became- the home, the private and the personal (Amin 37). However, women of all communities had to go through the process of seclusion, and health of women was deliberately ignored both by their indigenous partners as well as colonial authority. It did not have their concern until their offspring were becoming a matter of demise.

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Thus, through the hand of infant mortality the health of women, especially motherhood was restored in Bengal over the decades of the twentieth century. The year 1870 is deliberately chosen here to focus on the beginning of training midwives in Mitford Hospital, Dhaka; which can be traced as one of the significant events for Bengal in respect of ill practices of child birth and its process. To specify and observe the changing circumstances regarding this matter throughout the first half of twentieth century, the year 1950 is associated. A qualitative research methodology has been followed while both qualitative and quantitative data are collected, prioritizing primary and comparative secondary sources. Sanitary and Health Reports of Bengal, District Gazetteers and Census Reports of Bengal Presidency, contemporary books of native doctors and reformers, autobiographies, memoirs, journals, newspapers and periodicals such as *Bamabodhini Patrika*, *Saogat*, *Dacca Prakash* , *Masik Mahammadi* are used as primary sources; in which books and articles related to this title are used as secondary and tertiary sources**.**

Infant Mortality in Bengal: a Query between Male and Female Child Mortality

By the early 1870s the child mortality rate of Bengal can be estimated as over five hundred per thousands live births which can be assumed more than 50 percent of the total births. This rate was accelerating steadily towards the end of the 19th century to almost 57 percent due to a series of famines which resulted under nutrition and scarcity of food for mother and infants both. By 1890s the rate of mortality of children below one year was approximately 50 percent of the total born, which later dropped a little by 48 percent in 1895. By 1900 it was traced as 44 percent which dropped due to maternity related steps taken by the authority and cautiousness of educated class between 30 to 40 percent by 1920s (Reports on the Censuses of Bengal, 1890-1920). It was estimated that by 1920s daily 14 children lost their lives for ill practices of untrained midwifery, sacrificed on the hands of dais (Hussein 1). These estimations have their own pit falls yet the numbers were quite alarming especially in case of comparing male and female birth rate and mortality. Why this period had seen so many fatalities should be considered one of the basic questions, the answer lies on the debate over it by the nationalists and colonialists. While the authority puts their blame on natural disasters, superstitions, untrained midwifery, child marriage, unhygienic *aturghar*, *purdah* and so on; the nationalist indigenous accused of the colonial authority for creating famine, draining money and food shortage, mismanagement in health sector, lack of initiatives and enthusiasm; and the answer remains somewhere in between. Though infant mortality includes both male and female one, it is important to draw a clear portrait on female mortality comparing male death rate.

Female mortality had been always remained quite high in all parts of Bengal. Though the western part of Bengal faced the highest rate of female infant mortality among Northern and Eastern part, the Northern Bengal which included Rajshahi division with Malda, Cooch Bihar, Sikkim and Eastern Bengal which included Dacca and Chittagong division, Khulna and Hill Tippera had noticeable rates. It is also noteworthy that the birth and death of women were never a matter of importance in the colonial society regardless of class, caste or social status which is rightly pointed

out on the census of 1891 as: 'The death of an adult male member of a family is an event known to the whole village, and is regarded accordingly, so is the birth and death of a son. But mothers, wives, and daughters pass away without leaving a ripple on the surface of village life, and it is with respect to them that registration is most deficient' (Baines 6). It is found that this deficiency of female mortality registration even proved to 15 to 20 per cent less than male death registration between 1872 and 1881 (Murmu 28).

Age in Years	Eastern Bengal Male	Eastern Bengal Female
0-4	112.1	90.2
5-9	15.6	14.2
10-14	10.5	10.5
15-19	15.0	15.1
20-4	18.8	20.2
25-9	19.9	22.2
30-4	23.1	25.2
35-9	22.5	26.0
All ages	42.8	39.9
Birth rate	55.4	50.9

Table : Mortality (per 1,000) in Bengal: 1882-91
Source: (C. J. O'Donnell 168)

The rate of infant mortality is the highest among all the ages regardless of sex due to malnutrition, high maternal mortality as a cause of improper medical treatment, lack of medical facilities, negligence over female children, retract against the colonial treatment over traditional procedure, poor qualified midwifery and the propensity of women in nurturing their children and husbands in meager income ignoring their own health (Chandna 96-7). Census reports and health reports of this period indicates that colonial administrators had their clear claims over 'poor hygiene and bad birth management conditions following rituals of impurity and pollution attached to the birth' (Engles 121-50). Moreover, early marriage or post puberty marriage which resulted more children in short span, followed enfeebled constitution of mother which resulted mortality of some of her children (Plowden 85). The mortality of female child also related with infanticide of girls as they would lead to more expenses for the family in marrying them off in future (Waterfield 31). Hence, birth of a girl had been considered as a matter of ignorance and 'not worth payable' among lower classes where infanticide became the fate of small number of girls (Bourdillion 122).The report of 1891 census notes, 'if a girl dies…before she arrives at the age when caste custom demands that she should be betrothed, so much the better for the family resources. Many a girl is allowed to die unattended where medical aid would be at once called in if the son were attacked' (Baines 247). Moreover, families where constituted several female children, parents were showing even less efforts to serve any ill female child of them for recovery (H. H. Risley 116). The disbelief over western treatment and fear of diagnosed by male doctors let the mortality rate higher as the social stereotypes refused to do so even in having critical situations for mother and child during labor. Though the average infant birth rate of male child was exceeded than female birth rate, the female rate dramatically

topped over the male in calculating living person of age 0-5 in almost all provinces of Bengal. It was a matter of doubtfulness for the colonial authority since male offspring was more desirable than female and treated with much more carefulness than girls. The census report of 1901 shows that in between 1892-1900 the number of reported male child birth was 1,065 on an average against 1000 female child while reporting the person enumerated at the age of 0-5 it shows 1,078 females to every 1,000 males. Three probable causes were identified- 1. 'the greater relative infantile mortality amongst boys, 2. The greater degree of inaccuracy in the reporting of female, than that of male births, or, 3. The understatement of ages of girls, which has exaggerated the apparent number of living at the earlier ages' (H. H. Risley) And it was correctly proven that number 2 and 3 are the apparent reasons behind this miscalculation.

Rites and Rituals during Pregnancy and after Childbirth

Since child marriage or post puberty marriage was the remaining tradition of colonial Bengal, it was very common for a woman to start having children shortly after her marriage, often not long after reaching puberty. It had a strong religious basis both in Hinduism and Islam as sacred writings of ancient scripts pointed on early marriage in Hinduism and the holy book of Islam- Quran also recognized the approval of the premature marriage system. This long-standing custom became a curse for deteriorating women's health for generation after generation. Marriage is considered here both the ceremony and its consummation. Customarily it was very common that during pregnancy- a period of discomfort, women visited their parents' house for full relaxation, at least during the birth of the first child. Certain religious and social rites were observed in the fifth, seventh and nine months of pregnancy mostly in desire of a son, also to gratify of her appetite for specific food or sweets as she might not survive during the labor of childbirth. The relaxation and special care might possible in natal home, not in-law's as her daily works of household and rituals of protection from 'evil eyes' and 'evil spirit' made her life exhausted and tiresome. These believes of demons and evil spirits (*bhut, jinn, petni, pecha pechi*) were however very common in every sphere of society irrelevant of religion, class or caste-all associated from folk culture and indigenous imagination of Bengal (Amin 45). It was believed that during pregnancy they should never be allowed to sleep alone or in the same room with their husbands, should be slept with mother-in-laws or with some elderly women since any children born to them would be thin and cowardly if they are frightened at this time (Guha 27). Eating spicy and 'stimulating' food, staying up all night, excitements was prohibited. Special diet was recommended by the elderly women of the family while hard work and polluted air should be avoided. Though house hold chores were banned, peasant women had to go through their daily works. Travelling was forbidden by train or by bullock cart, drawing heavy things like water or working on *dhenki* (hand mill for husking peddy) were prohibited as well. Seclusion was also deemed necessary to protect the unborn child from external stimuli. Rituals aiming at child's health were often observed during pregnancy. Besides a number of rites and rituals were executed which involved the participation of mother herself aiming at her physical and psychological contentment (Engles 125). In Bengal, to ensure a safe delivery there were some prenatal rituals such as- a

cloth should not be wore over which birds had flown, spitting on the breast once a day before washing and wearing a reed in the hair to hold off evil spirits (Bose 293). These strict maternal rites put an extra burden over the minds of pregnant women and sometimes they were forced to do these in order to have a healthy child. However, these rites rituals and relaxation weren't possible for the working class women of peasant labors, jute labors, factory and mine workers. For both communities the phase of strict maternal rest started just after giving birth to a child. The post partum period lasted 21 days for boys and 30 in case of girls among Hindu community which ended through ceremonial bath, while for Muslim women it lasted for 40 days (Engles 127). Ritual bath was commonly observed by the Hindu community. The assumed impurity of post partum confinement period was washed away through this bath to pure and to clean the mother. Immediately after giving birth, it was compulsory to take a cold bath in the tank or *ghat.* In this weaker state, this bathing might brought her into delirium state at times while *ojha* or exorcist was called upon to exorcise the spirit possessing her by beating her with *jharu* (broom) or torn slipper (Bose 23-4) (Borthwick 154). This ritual bath can be considered harmful both for mother and child and even caused pneumonia, though a warm water bath after childbirth for mother is sufficient according to mother's condition. The birth of a child was more celebrated by the members of the family in case of a boy than a girl. A number of rituals were observed including a ceremonial feeding of children among Hindu community named *Sasthi* and *Harilot*. *Sasthi puja* was performed mostly by high caste women on the six day after birth for the blessing and for the child's future to be written by creator, while *Krishna* or *Harilot* system- more observed by the culturally marginalized groups like *Vaisnavas*, *Bauris* or *Adivasis* and was gaining more popularity among enlightened Bengalis. Per contra, the working class women of lower castes were always excluded from observing these rites and rituals as they had to return to their work after one or two days of giving birth and took their children with them in employment. Among the Muslim community usually in upper and middle class, the rites started just after the birth and the day following, immediately, with *azan* which would be given seven times and the holy Quran would be recited outside the room of labor. Lamp or candle would be burnt constantly for 40 days of post partum confinement period, in belief that the new born and mother both could be protected from evil spirits and demons. *Purdah* or seclusion was a must both for prenatal and post natal period of motherhood. Among in the common folk of village, the mother was regarded impure and unclean for forty days after birth while she was kept in a separate narrow compartment with meager strict diet and food served on a leaf or humble dish, thus negligence was provided from the family (M. M. Hossain 83). In the autobiography of Mir Mosharraf Hossain from *Amar Jibani*, he pointed out the situation of a commoner's *aturghar*- a mean hut in the remote corner with torn rags, meager food where mother was kept unclean for 40 days, while no utensils were provided to serve her food as well as no humble dish. (Amin 44-5). The prenatal and post natal rites and rituals may seem valuable from religious and traditional perspectives; but they lack proper hygiene and diet for pregnant women, and more importantly, these rituals had created hindrance towards maintaining them.

Diet for Pregnant Women and Diet after Childbirth

During pregnancy and postnatal period, a strict diet was imposed upon the new mother, customarily suggested by the elderly women of the family: mother-in- law or by her own mother. After childbirth the midwife put the mother on a strict diet while excluding cool water and other cooling drinks even in the warmest months of the year. A compound of drugs named *Jhal* was prescribed to the mother to create an antidote against cold, perpetual fever and other diseases. Changes were made during the late nineteenth century while traditional foods like pepper, lime, hot ghee, fish, meat, *roti*, *luchi*, and *parota* were considered harmful while milk, arrowroot, barley, sago, boiled rice and *mug dal* broth were included as a medically recommended diet. For extreme cases even brandy was suggested to relief pain (Dhatri Bidya), (Dasi), ("Sutika-griha"), (Borthwick 162-67). The diet of women in Bengal was quiet related with some customs regarding *purdah* and joint family system which was not an exception even in case of the pregnant one. Women of *antahpur* were never allowed to eat before or with their husbands. It was a proper etiquette for an ideal begum or *grihini* to sit by the side of adult male members like sons, brothers, nephews; 'not to eat but to see that they are properly served; she closely watches that each and every one of them duly satisfied…' (Bose 12). In aristocratic families of Muslim community the *andarmahal* was consisted of hierarchy of family members and servants, where cooking, supervising, cleaning were work of servants but the begum devoted herself as the monitor of serving, of course by maintaining proper *purdah*, and would eat later in their *andarmahal* after the male members were done with (Amin). In poor families women were naturally undernourished due to eating their husband's leftovers partly for the scarcity of food and partly because it is believed in Islam, increases *mohabbat* (love) between couples by sharing meals from same plate, as well as among Hindu community as they regarded husband's leftover food as *parasad* of deity (Engles 18-20). All day long hard work and less feeding made women's body more vulnerable, while sometimes they had to wait till late at night to eat their evening meals, in case their husband brought some guests'; in which situation they might skip meals on those nights and would go to sleep starving. Moreover, poverty itself created an obstacle for women's health. Since from the very beginning of their life most of the women of Bengal had to face the struggle of poverty and hard work of in law's house, they had been growing as under nourished, fragile in constitution, poor in immunity and susceptible to any possible disease that might come along during pregnancy and after childbirth. While the mother herself is in malnutrition from very early stage of life, her constitution became more vulnerable during pregnancy, especially in case of several consecutive pregnancies in which she couldn't overcome the lack of nutrition that had already remained due. Thus, possibilities of birthing undernourished, enfeebled children due to dietary deficient mother became a concern of late nineteenth century.

Aturghar

The place of delivering child for a mother was not usually her own house rather a secluded place near house as the mother herself was considered impure. In most parts of Bengal, a temporary shelter with the smallest possible doors and windows to enter light and air was constructed in the backyard with matting where the oldest,

dirtiest rags were used for delivery. If it was not possible for separate placement, then a room would be chosen which used to be an outhouse or closet with narrow confinement and visually dark in the constitution. The dirty clothes provided to the *dais* or midwives were used so many times before without being washed, the dung plastered mud floors and walls, unhygienic and unhealthy environment without proper light and air, even in hot weather the room would be tightly closed; damp mats and clothes hanging which were used by the mother within that room, smokes from charcoal fires for rituals denying lest possibility of fresh air were common features (Lankaster 147-50). The character of the room often dependent on the means of the family thus sometimes cow-shed or a part of kitchen was used as *aturghar* (The Census of India, 1911, vol. 1 328). The windows and other passages of light and air were closed to prevent evil spirits and cold. Lights were burned in that room for the same reason which created fumes and suffocation for the mother and her new born child. The damp constitution of the *aturghar* led women towards extreme susceptibility of infectious diseases; *sutika rog* or puerperal fever, small pox, measles, malaria, diarrhea, dysentery, pneumonia, influenza and hepatitis, which were the acute causes of death in childbirth. The mother herself was frequently infected by bacterial infection; besides delirium condition was very common. The infant mortality rate in Dhaka (Dacca) alone traced per thousand between 1922 to 1925 was-

Town	Infant Mortality Rates (per thousand)			
Dacca	1922	1923	1924	1925
	248	237	227	222

Source: (Annual Report of Public Health Commissioner with Government of India for 1925, vol. 1 325)

The environment of *shutikagriha* or *aturghar* was modifying with the necessity of changing hygiene related issues regarding blames for infant mortality in reports of colonial authority. For proper ventilation in *aturghar* Shib Chundra suggested a higher floor, necessary management for the room to fill with clean air though proper passing where environment could be dry and sunny **(Deb 3)** Among the upper class Muslims the condition of *aturghar* or a secluded room for childbirth had already been well conditioned with better ventilation. It was suggested in new medical set ups that a mother should not be confined in *sutikagriha* more than one week, she should be allowed to wear warm clothes and to eat healthy foods. However, it's unknown how many families could deny the traditional taboos (Borthwick 162). In *Bamabodhini Patrika* a series of article published on midwifery imposed its importance on *aturghar* stating that it should be situated in the second story of the house to get enough light and air, should have enough windows to allow fresh air, entrance of plenty of sun would ensure to remove smells and germs residing in damp condition. Instead of cow dung fire, wood or charcoal fire was suggested in times of cold weather and should be lit outside the room to control the amount of smoke (Dhatri bidya).The initiatives of improvement came from the *bhadralok (*new educated class) first who had already have some thoughts about alternative possibilities and broke some traditions on this regard (Borthwick 161).

Midwifery

During the first two decades of twentieth century in Bengal on average one in five babies died before their first birthday. One of the blames goes to incompetent midwives and poor hygiene of the aturgahar. The practice of cutting umbilical cord with infected instruments such as a piece of split bamboo or a conch shell and the application of cow dung ashes to the newly cut end which bore tetanus and caused death of large number healthy infants every year, especially among the Hindu community (The Census of India, 1911, vol. 1 30). By the early twentieth century western observers and colonial authority focused on the meager condition of traditional midwifery hence census authority of 1901 commissioned a special enquiry on this regard. The midwifery service was provided by the *dais* which belonged to low castes of *Dom* and *Bagdi* as the work of childbirth considered impure. The occupation was usually hereditary and professionalism achieved through only few attendance of delivery cases. This proficiency might seem adequate for normal delivery without complication but in case of cross birth or complication during labor, for inexperience and improper treatment lives of both mother and infant was in threatening position. Cross birth cases several times caused deaths of infants due to lack of proper obstetric skills of midwives (H. H. Risley 479). Though skilled midwives and doctors was a demand of time from the outlook of colonial authority, except some lower caste women, middle class and upper class *bhadramohilas (*wives of *Bhadraloks* who might be educated*)* and *begums* denied seeking for such options because of their *purdah* system and traditional customs of protecting chastity. Doctor's role on this regard of midwifery and delivery was not appreciated by the most of the families both from Muslim and Hindu community. As a part of restoring colonial tradition and nationalistic movements denial of western methods of treatment and medicine became an issue among *bhadraloks* of the nineteenth century. Though by the twentieth century educated middle and upper class *bhadroloks* showed willingness to use new medical knowledge (doctors specialized on obstetrics and gynecology, use of chloroform to reduce the pain of delivery), it was accessible to those few who can afford with high cost. These doctors called upon during confinement had chances to undertake the medical management before and after delivery only with the manual assistance of midwives. Midwives became a compulsory function here even if a doctor's presence was ensured as 'the patient would not be ashamed to perform any bodily function in front of her' (Dhatri Bidya). However, Dr. Alex Simpson the first Superintendent of Mitford Hospital, Dhaka, stated in one of his letter that during the initial years of the establishment of Mitford Hospital (1858-1882) many out patients were treated at their houses by the medical assistance and expenditure of the Hospital, especially in case of midwifery. 'The majority of the Midwifery cases (all of difficult labor) have been attended as out-patients at their own houses, but have been supplied with whatever was requisite in diet, bedding etc. from the Hospital; Medical aid would, in many instances, have been unavailing without such; the wretched state of the poor in childbed is well known to those conversant with the native habits and customs, and by none have the benefits of the Hospital been more gratefully received than by such' (Bengal Medical Department Proceedings,1861) .These medical and financial assistance had created some popularity of the new hospital among people but the doctor's assistance instead

of midwife wasn't welcomed till then. Therefore, the British authority had started its program to retrain midwifes about health and hygiene, proper procedure of childbirth, possible cases and emergencies; can be regarded 'an attempt to combine practical experience and scientific knowledge' (Borthwick 159). The Calcutta Medical College Hospital got this permission of retaining midwifes in November 19, 1869 and Dr. J. Murray, (inspector general of hospitals of Indian Medical department)suggested in his report that Mitford Hospital in Dhaka can only be deserved in whole Bengal for this program and, thus, it first introduced courses for midwifes in 31st May, 1870. He also suggested that students should be steepened monthly by five taka each to encourage them on their training and a 'subsistence allowance' of two *ana* per day should be allotted for pregnant mothers staying in hospitals during labor and it was suggested to create separate ward for maternity in hospitals and dispensaries. The government of Bengal willingly accepted the suggestion providing by Dr. J. Murray and send a proposition to the government of India for starting a course subsiding three female students with monthly five taka steepened. The Governor General was pleased to sanction the proposition as an experimental measure for a term of five years in on expense of monthly 15 taka (Bengal Medical Department Proceedings, 1870).Later the junior secretary of Bengal government A. Mackenzie informed this news to A. B. Simpson, the commissioner of Dhaka division and ordered to announce it in Dhaka and its nearer regions. He also advised to create incitation among lower class women to deliver their child in Hospital (Bengal Medical Department Proceedings, 1870). This statement clearly represents the apathy of women themselves as well as obstacles put upon women in Bengal in seeking medical attention even for the lower class that the hospital authority should be put effort on making the program popular among women which later worked well. By 1882 a separate ward named female ward was established in Mitford and in 1903 a maternity ward was built by the finance of Nawab Sir Salimullah and was named after his mother 'Asmatunessa ward' (Ahmed 100-29). In the same year lady Curzon organized the Victoria Memorial Scholarship Fund for training traditional midwives but due to lack of supervision they went back to their old habits though they had attended some classes. By 1920s, under few *mahila samitis* (women's organization) of western and eastern part of Bengal maternity hospitals and clinics were established, usually named as *Matrikollan Sheba Sadan*(Mother and Child Welfare Care Institution). These institutions were built to improvise the condition of health and hygiene of women in local district towns and surrounding villages. Later in 1929 training for indigenous midwives was introduced and they were provided equipped midwifery bags (Curjel Appendix A, p. 12-15).During that time Bengali District board appointed some qualified midwives. However, Because of traditional prejudices against the impurity of childbirth limited number of midwives was produced under this scheme (Engles 148). On the other hand, educated women of aristocratic and middle classes were changing their minds regarding impurity as well as their roles by being trained for midwives themselves. In Sylhet, Nanibala Devi, a daughter as well as a wife of medical doctor, learned midwifery from her family and later built a *mahila samiti* and a clinic where she herself managed deliveries (Engles 151) . An extraordinary example of how women from aristocratic and educated background attached themselves gradually with that

profession which was popularly regarded as impure. Towards this process of reformation philanthropists of Bengal also created an opportunity to advance maternity service among the hospitals and clinics by donating moneys to regarding authorities for building separate wards or residence for pregnant women and infants. In public health sector as a whole the total number of dispensaries rose from 61 to 1867 to over 500 in 1900 (Ekram).

Child Marriage and Its Relation with Infant Mortality

According to Hunter's Statistical Account of Bengal of 1873 he mentioned that both among Muslims and Hindus girls were usually married at 10 by parent's arrangement and had no consent on this regard. Child marriage was an issue over the nineteenth century as well an agenda of Bengali reform movement. The visit and book published by Catherine Mayo named *Mother India* had depicted the tradition of child marriage in India, conditions related to it and its impact on the health of women. Though controversy rose against her comments on legalizing British rule in India, she rightly pointed out the miseries of women in maternity as they were children themselves with frail human constitution, malnutrition, poor mental health as being feared and depressed yet fighting for the survival of both herself and her child while often failed. In explaining child mortality she narrated thus, 'Many are born dead, and all, because of their low vitality, are predisposed to any and every infection that may come along' (Mayo 56). Rokeya pointed child marriage as one of the reasons behind infant mortality citing from the quote of Dr. Bharat Chandra that one should not be a mother without learning her duty as a mother. Since the mother herself was a child of 11 to 13 years old, when she got the chance to learn her duties? Therefore, she reiterated Dr. Chandra's suggestion that girls should not be married off until twenty. In the meantime she should be gone through proper diet and physical exercise to keep her body fit and healthy as being prepared for the next phase of life, motherhood (R. S. Hossain 162).

Purdah and Maternity Complication

The tradition of maintaining *purdah* or seclusion was traced one of the causative factors in diseases during pregnancy and also infant mortality, became an issue over the nineteenth century. The Muslim majority eastern Bengal faced this *purdah* related controversies more than other parts of Bengal. However, *purdah* was not a practice for Muslims only, upper and middle class Hindu women were maintaining *purdah* and seclusion. It had already been depicted as a tool of controlling sexuality and women's rights though the narration of western writings and progressive communities of Bengal. In many reports it was stated that Muslim women suffered more diseases in general than Christian women as comparative studies were undertaken on diseases by community. 'This led to movement among Muslim social reformers aimed specially at the amelioration of the condition of childbirth among Muslim women' (Guha). During the era of *Shaugat Patrika* (1918-1950) it was stated that women weren't supposed to seek for medical help even in crucial situation in fear of breaking their *purdah* system which regarded as a great sin paving path to hell in after life. The diseased one eventually became thinner in constitution and die without any proper treatment (Nasiruddin). Tuberculosis after

childbirth and toxemias of pregnancy were assumed greatly related with the custom of seclusion, and prevalence of these problems more among Muslim women than other community can be considered as proof (Lankaster). In 'Avorodhvasini', an essay of Rokeya Sakhawat Hossain, she focused on the impact of seclusion over *purdahanshin* women on the psychology, and physiology through their denial of medical attendance to safeguard *purdah* by any means (R. S. Hossain 179-89).Seclusion was portrayed necessary to protect the unborn child from the impression created upon the mother by external influence or stimuli including encountering strange men. Importance also imposed on to seclude women during the period of lactation to protect the new born, was suggested by the indigenous doctors to control the nervous system of new mother.(Bandyopadhyaya, Kamakhya Charan, 1897, *Stri-shiksha* (in Bengali), Calcutta, Arya griha-chikitsa (in Bengali), Calcutta, 1911). These norms were quite debilitating for pregnant women as well as for new mother. They were given less right to speak as their own, however, they deliberately complied with these religious traditions and social norms in fear of committing sin or of having an abnormal child of their own which they couldn't risk. Unfortunately, among the Muslim upper class families *purdah* was maintained not only from the males but also from the females especially from female outsiders and elderly people. As Rokeya quoted, 'From the age of five we girls had to observe *purdah* even from those of our own sex. Men were not allowed in the *antahpur* so I did not have to suffer their oppression' (R. S. Hossain). She also portrayed how lady doctors (then popularly known as she doctor) were called on from distance places by the male servant of the family stating about dental problem of the *bou begum* while she was having her labor pain. Since it was not a proper way to tell a male person about the condition regarding pregnancy or any such kind the lady of the house had to lie (R. S. Hossain 407).

'Devine Maternity' and 'Redefined Motherhood':

The role of motherhood was considered the most valuable service in the life of a women as she was born and brought up for serving this function in colonial social structure and the major part of her life passed through childbirth and child rearing. The bond of marriage and achievement of healthy conjugal life implied through the birth of a child. In that case birth of female child was not so desirable considering expenses and burdensome role of girls in the society, while the birth of a son was the most expected and important event to the family and regarded the greatest achievement of motherhood, as he would be the next successor and become an economic source himself. For Hinduism he plays even more important role as he has to perform the ritual offering of oblations to ancestors. Failure of conceiving a male child thus made ways for husbands to abandon their wife and be married again in desire of a son. In Hindu religion, the idea of a women as mother is considered as a Goddess who had become the Mother of all mothers and ' all women partake of that divine motherhood and man looks upon woman as gifted with deeper and tenderer divinity than what he himself possesses.' (Borthwick 152).However, the devotion to the deity not necessarily ensured the position of mother as worshipped one, rather she treated his husband as a God, devoted herself as a slave and 'due to the *purdah* related separation of male and female spheres-birth was an entirely female concern.

This also influenced the official colonial approach to birthing and women's health' (Engles 123). The Hindu caste system and Muslim class system of *ashraf(* belonged to the culture of Perso Arabic*)* and *atraf(* the masses whose culture was largely rural syncretic) (Amin 17)had already created divisions in the society where the position of women was seemingly caste beneath caste. However, by the late nineteenth century the expected role of motherhood were not just childbirth and childrearing, she now had to prove herself with lot more than a mere mother. Since the question of female education was uttering on the point of bringing about moral and social welfare of family members, women were counted as a tool of nationalist agenda against colonial claims of Indian superstition and traditional bigotry. 'This new educated women were expected to be developed as companion to men, as scientific nurturers of their children, as member of civil society; they were to remain a socially distanced class from the common or lower class women, inhabiting a world of unrefined, coarse, popular culture…'explained Sujata Mukherjee in expressing the role of redefined motherhood (Mukherjee). Pedagogical writing were publishing to set up new rules and guidelines for making ideal housewife for proper home management, nurturing child scientifically, regulating dietary habit, creating hygiene environment, to able to understand and follow the experts instructions . Thus, women were awarded a special argumentative status in remodeling private domain of a nation as a mother.

Changing Circumstances

The concept of *bhadramohila* as the female opposition of *bhadralok* came regarding the changing circumstances in term for embodying ideal type of qualities and notion of a certain life style for women. This notion was mainly come forward after the idealism of *Brahmo shamaj*, women of this community were partly playing contradictory role from traditional one in means of education, manner, seclusion and attire. By the 1890s, their lifestyle can be considered a balance between traditional and modern way of life for women. The *Bamabodhini Patrika* , a periodical patronized by *Brahmo shamaj* had been published articles on women's well about including on midwifery, diet and child rearing. It had a circulation of over 1000 by 1885 which also indicates the actual number of reader would be greater in quantity.(Meredith, p. 164)To set new medical principles for mothers Shib Chunder Deb published *Sishu Palan*, a manual of mother and children care can be regarded first of this genre. The importance about prenatal care also focused on another manual named *Stribodh* by Mohendracandra Gupta published in 1862. Manuals like these were known exclusively to the *bhadramohila* class both in Muslim and Hindu community as they were familiar with the education and changing social circumstances. Books on medical care, hygiene and midwifery were becoming such popular among women that these books had to print in raging from 500 to 2000 copies and often sought for several editions. (Borthwick 164) . This became possible as well for the progressive husbands, *bhadraloks*, who were concerning about their wives health and ignoring the ritual notion of impurity regarding childbirth. Rokeya in her autobiographical writing named "Neli Nurse" stated how her older brother, Jamal Ahmed, a district magistrate, dared to take his wife and his infant to the

Jenana (Women's) hospital denying for the first time of his mother's order, which can be an example of breaking traditions regarding this issue (R. S. Hossain 148)

By the beginning of the twentieth century, writings of Rokeya Shakhawat Hossain(*sishu palan in Saogat*), Kasema Khatun(*Narir Katha* in *Saogat*), Razia Khatun Chowdhurani (*Mayer Shiksha*, Education of Mother, in *shaogat*), Akhtar Mahal Syeda khatun (*Prasuti o Sishu Mangal* in *Saogat*), Srimati Shubodh Bala Biswash (*Naritwer Adarsha* , Ideal of Womanhood in *Masik Mohammadi*) played an immense role among the Muslims women of Bengal about the superstitions and rituality western medicine and treatment regarding pregnancy and childbirth. Besides the book of Major Hasan Suhrawardy named *Prasuti O Sishu Mangal* (Natal and Infant Welfare, 1925) showed different aspect of pregnancy and postnatal care from medical aspects , also the psychological and physiological impacts of traditional social stereotypes on women of Bengal regarding influence of Hindu customs of child birth practices on Muslims and its legacy as creating believes 'in forms of casteism and untouchability' (Amin 96). In "*Shishu Palan*" ("Child Rearing"), one of Rokeya's writing on child care from realistic and modern point of view, she focused on the infant mortality rate in Bengal alone through comparing among the consecutive years, on prenatal care of pregnant women especially about the ventilation of her room. Child marriage, absence of proper education among women, unhygienic condition of *aturghar*, unconsciousness of mother lacking proper care of infants, feeding cow milk and other staffs instead of mother's own milk in case of her enfeebled health, lack of proper bathing and feeding, were pointed as causes of infant mortality, where she suggested some modern view of proper bathing, feeding and scientific aspects of infant care. Most importantly she focused on caring of new mother besides caring her children since new mother needs the most care to feed and rear her infant (Hussein).This writing which was read out in a baby show held at Calcutta Town Hall in April 1920, shared almost the same view point of *Brahmo Samaj* and other social reformer groups of Bengal of the late nineteenth century. On this regard, while Razia Khatun marked on the changing concept of motherhood regarding child care and sex education for healthy conjugal life in *Mayer Shiksha*, Akhtar Mahal restated Rokeya's proverb-'One does not become a mother by giving birth alone'- as the new concept of motherhood and child rearing. Akhtar also blamed poverty as well as lack of education as the prime causes behind the degenerating status of motherhood (Chaudhurani) (Khatun). The political movements and uprising in home and abroad during the first two decades of twentieth century accelerated circumstances to be changed. Through the Bengal Partition and Swadeshi Movement, questions about British beneficial rule in India were rousing. In such a time of political turmoil, the colonial authority sought for ways in recreating their image by enacting bills and reforms for proving their necessity of governing in India. By the 1880s the foundation of 'The National Association for Supplying Female Medical Aid to the Women of India' commonly known as Lady Dufferin Fund was formed. However, its initiatives like establishing maternity hospitals and clinics were seen by the nationalists as a matter of publicity of beneficial governing in England and outer world instead of as a matter of real concern for colonial people. Besides reforms was mostly rejected deeming 'as an

insult to the art of child rearing.' (Engles 138). However, questions of reforming vicious social traditions and norms by enacting bills and other legislative procedures were growing among the educated intellectual class of Bengal. The Native Marriage Act III (1972), the Sarda Bill (1927), the Child Marriage Restrain Act (1929), the Age of Consent Act (1930), is achievements of their movements. Women's associations like AIWC, NCWI and other reformer groups accelerated these movements towards reforms by 'effective petitioning and effective action' (G. Forbes 83). Forbes stated child marriage as 'the first social reform issue in which organized women played a major role in both the development of arguments, in this case against child marriage, and the work of political petitioning' (G. Forbes) . Child marriage was always an issue of sensitivity as well as 'a reform should be done' agenda for colonial authority as the pre puberty marriage and its consummation was always a matter of absurdity and cruelty to them. Though by the act of 1860 the age of consent was set at ten years for married and unmarried both, it was further questioned in 1880s and 1890s, when the criminal code was amended to raise the age of consent to twelve years in 1892 (Nair). However, it faced an immense restrain from the conservatives of Hindu community as marriage of a girl above 11 was regarded a great sin in Hinduism. Parts of Muslim community also opposed this proposal and participated in protest meetings in Dhaka- Syed Golam Mostafa, Munshi Bazlur Rahman, Maulavi Shamsul Haque , Kaikobad all joined this protest. Fortunately, The Central Mohammadan Association and Mohammadan Literary Society, leading Muslim associations of eastern Bengal supported for it. Moreover, Nawab Ahsanullah of Dhaka and Sir Syed Ahmed Khan, one of the pioneer of Bengali Muslims; were in favor of it (Amin). The achievement of this act can traced through the report of *Dacca Prakash* on 17 January 1892 where a case was charged in Dhaka District by a Muslim women against her son-in-law accused rape claiming her daughter was below twelve years. Through the medical examination the age was proved more than twelve and the case discharged, however, the legal battle represents the emergence of legally conscious women who had their act for justice and will to seek for legal action (Report of Native Papers). Later in 1929 through the appeal of Hindu Marriage Bill of 1927 by Rai Shahib Harbilash Sarda, the Child Marriage Restrain Act was passed in which the minimum age of marriage was 14 for girls and 18 for boys for all community. It also passed for registration of births and marriages and other regarding legislation to make it a meaningful act, yet the issue of age of consent wasn't mentioned. By 1940s, after 10 years of passing this bill it was not uncommon to be married off by 12 among girls in both communities as strict implementation was meant to be an obstacle with native conservatives.

However, the Bengal Births and Deaths Registration Acts passed in 1873, though at first were in force for a few towns, and later in 1897 were extended to all municipal towns. As infectious and epidemic diseases were very common in Bengal and one of the causes of increasing infant mortality, the Compulsory Vaccination Act of 1880 empowered provincial governments to introduce vaccination for children over six months. Besides, for working women of coals and mines, jutes, and cotton industry the Maternity Benefit Act was passed in 1939 (Bengal act no.4 of 1939) to decrease the infant mortality rate among working classes by prohibiting employment of

women six weeks before delivery and six weeks after, also outlaws dismissal of women from work during maternity leave.

Conclusion

The correlation between infant mortality and, health and hygiene of women during pregnancy and after childbirth had its ground here long before the colonial intervention; as its variant cultures, traditions, religions had their own strict aspects regarding this issue. The class and caste system; *purdah* system; child marriage; social norms, superstitions, seclusion regarding maternity; diet of women being pregnant and after childbirth; unhygienic *aturghar* for new mother and infant; untrained midwifery; unavailability of medical facilities for women; lack of knowledge about health and hygiene in general and infant care in specific; can be traced as the primary causes (grounds of correlation) of infant mortality in Bengal. However, by the late decades of nineteenth century and by the beginning of the twentieth century this scenario was changing as infant mortality was reaching in an alarming situation. Including gynecology as a subject for medical students; ensuring their training of midwifery, adding female students in medical education, retraining conventional midwives, adding separate unit for maternity in hospitals and clinics, most importantly, breaking the social stereotypes and believes regarding pregnancy and maternity, were parts of major initiatives taken for this; which later leads to comprehensive reforms over the centuries.

Works Cited

1. "Sutika-griha"*Antahpur* 1868: 5,7.
2. Ahmed, Sharif uddin. *Mitford Hospital and Dhaka Medical School: History and Heritage 1858-1947*. Dhaka: Academic Press and Publishers Library, 2007.
3. Amin, Sonia Nishat. *The World of Muslim Women in Colonial Bengal, 1876-1939*. New York: E. J. Brill, 1996.
4. *Annual Report of Public Health Commissioner with Government of India for 1925, vol. 1*. Calcutta: Government of India:Central Government Branch, 1927.
5. Baines, J. A. *General Report on the Census of India, 1891*. Westminister: Eyre and Spottiswood,1893.
6. "Bengal Medical Department Proceedings." July 1870, No. 34, Vol. 5.
7. "Bengal Medical Department Proceedings." December, 1861, No. 21.
8. Borthwick, Meredith. *The Changing Role of Women in Bengal, 1849-1905*. New Jersey: Princeton University Press, 1984.
9. Bose, S. C. *The Hindoos as They Are*. Calcutta: W. Newman and Co., 1881.
10. Bourdillion, J. A. "Report on the Census of Bengal, 1881." Calcutta: Bengal Secretariat Press, 1883.

11. Chandna, R. C. *A Geography of Populations: Concepts, Determinants and Patterns*.Delhi: Kalyani Publishers,1986.

12. Chaudhurani, Razia Khatun. "Mayer Shiksha (the education of mother)." *Saogat* , 1927.

13. Curjel, Dagmar F. "Bulletin of Indian industries and labour, No 31: Womens labour in Bengal Industries." 1923.

14. Dasi, Nanibala. "Sutikaghore prashutir susrusha". *Antahpur* May 1901: 7,1.

15. Deb, Shib Chundra. *Sishu Palan*. Calcutta:J. G. Chatterjee and Co.,1857.

16. "Dhatri bidya." *Bamabodhini Partika* December 1867: 3,52.

17. "Dhatri Bidya." *Bamabodhini Patrika* 4 October 1868: 59.

18. "Dhatri Bidya." *Bamabodhini patrika* March 1868: 3,55.

19. Ekram, ARM Saifuddin. "Public Health."(ed.), Professor Sirajul Islam *Banglapedia*. Dhaka: Bangladesh Asiatic Society, 2012.

20. Engles, Dagmar. *Beyond Purdah? Women in Bengal 1890-1939*. Delhi: Oxford University Press, 1996.

21. Forbes, Garaldine. "Women and Modernity: the Issue of Child Marriage in India." *WSIQ* (1979): 407-19.

22. Forbes, Geraldine. *Women in Modern India*. Cambridge: Cambridge University Press, 2008.

23. Guha, Supriya. "The Nature of Women: Medical Ideas in Colonial Bengal." *Indian Journal of Gender Studies,Sage Publication* (1996): 27.

24. H. H. Risley, E. A. Gait. "Report on the Census of India, 1901."Calcutta: Superendent of Government Printing, 1902

25. Hossain, Mir Mosharraf. *Mosharraf Rachana Sambhar, "Amar Jibani"*. Dhaka: Bangla Academy, 1985.

26. Hossain, Rokeya Sakhawat. *Avorothbashini*. 1921.

27. Hossain, Rokeya Shakawat. *Rokeya Rachanaboli*, Abdul Kadir (ed.). Dhaka: Bangla Academy, 2006.

28. Hussein, Rokeya Sakhawat. *"Shishu Palan", (Child Care)*. Calcutta: Saogat, 1920.

29. Khatun, Kasema. "Narir Katha." *Saogat* July 1926: 4:2.

30. Lankaster, Arthur. *Tuberculosis In India: Its Prevalence, Causation and Prevention*. Lonndon: Butterworth and Co., 1916.

31. Mayo, Katherine. *Mother India*. New York: Brace and Company, 1927.

32. Mernissi, Fatema. *Beyond the Veil: Male Female Dynamics in Modern Muslim Society*. Bloomington: Indiana University Press, 1984. 7.

33. Mukherjee, Sujata. "Women and Medicine in Colonial India: A Case Study of Three Women Doctors." *Indian History Congress, vol. 66* (2005-06): 1183-97.

34. Murmu, Maroona. *Words of her Own: Women Authors in Ninetenth-Century Bengal*. Delhi: Oxford University Press, 2020.

35. Nair, Janaki. *Women and Law in Colonial India: A Social History*. New Delhi: Kali for Women, 1996.

36. Nasiruddin, Mohammad. "Conditions of Muslim Women During the Era of Saugat." *Bangla Shahittye Saugat Jug*. Dhaka: Bangla Academy,1985.

37. O'Donnell, C. J. *Report on the Census of Lower Provinces of Bengal and their Feudatories, 1891*. Calcutta:The Bengal Secretariat Press, 1893.

38. Plowden. "Report on the Census of British India, 1881, vol. 1." London: Eyre and Spottiswoode, 1883.

39. "Report of Native Papers." *Dacca Prakash, week ending 23 January, 1892* 17 January 1892.

40. *Reports on the Censuses of Bengal*. London: Government of India, 1981-1920.

41. "The Census of India, 1911, vol. 1."Calcutta: Superendent Government Printing, 1913.

42. Waterfield, Henry. *Report on the Census of Bengal, 1872*. Calcutta: The Bengal Secretariat Press, 1875.