Modernizing Childbirth in Colonial Bengal

A History of Institutionalization and Professionalization of
Midwifery, c.1860-1947

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Abstract

In colonial India, medicalization of childbirth has been historically perceived as an attempt to ‘sanitise’ the *zenana* (secluded quarters of a respectable household inhabited by women) as the chief site of birthing practices and to replace the *dhais* (traditional birth attendants) with trained midwives and qualified female doctors. This thesis has taken a broader view of the subject but in doing so, focusses on Bengal as the geographical area of study. It has argued that medicalization of childbirth in Bengal was preceded by the reconstitution of midwifery as an academic subject and a medical discipline at the Calcutta Medical College. The consequence was the gradual ascendancy of professionalized obstetrics that prioritised research, surgical intervention and ‘surveillance’ over women’s bodies. The thesis also shows how the medicalization of childbirth was supported by the reformist and nationalist discourses of the middle-class Bengalis in the late nineteenth and early twentieth centuries.

The thesis begins from the 1860s when the earliest scientific essays on childbirth and pregnancy began to appear in Bengali women’s magazines such as *Bamabodhini Patrika*. It ends in the 1940s, when nationalism profoundly influenced the professionalization of obstetrics - midwifery being perceived as the keystone in a nation’s progress.

Bengal being the earliest seat of British power in India it was also the first to experience contact with the western civilization, culture and thought. It also had the most elaborate medical establishment along western medical lines since the foundation of the Calcutta Medical College in 1835. It is argued in the extant literature that unlike the West where professionalized obstetrics was characterised as essentially a male domain, the evolving professional domain of obstetrics in Bengal was dominated by female doctors alone. Questioning that argument, the thesis demonstrates that the domain of obstetrics in Bengal was since the 1880s shared by both female and male doctors, although the role of the latter was more pedagogic and ideological than being directly interventionist. Together they contributed to the evolution of a new medical discourse on childbirth in colonial Bengal.

The thesis shows how the late nineteenth century initiatives to reform birthing practices were essentially a modernist response of the western educated colonized middle class to the colonial critique of Indian socio-cultural codes that also included an explicit reference to the ‘low’ status of Bengali women. Reforming midwifery constituted one of the ways of modernizing the middle class women as mothers. In the twentieth century, the argument for

medicalization was further driven by nationalist recognition of family and health as important elements of the nation building process. It also drew sustenance from international movements, such as the global eugenic discourse on the centrality of 'racial regeneration' in national development, and the maternal and infant welfare movement in England and elsewhere in the inter-war years. The thesis provides a historical analysis of how institutionalization of midwifery was shaped by the debates on women's question, nationalism and colonial public health policies, all intersecting with each other in Bengal in the inter-war years.

The thesis has drawn upon a number of Bengali women's magazines, popular health magazines, and professional medical journals in English and Bengali that represent both nationalist and official viewpoints on the medicalization of childbirth and maternal and infant health. It has also used annual reports of the medical institutions to chart the history of institutionalization of midwifery and draws upon archival sources - the medical and educational proceedings in particular - in the West Bengal State Archives and the National Archives of India.

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List of Abbreviations

AIHPH	All India Institute of Hygiene and Public Health
AIWC	All India Women's Conference
BHWC	Bengal Health Welfare Committee
CMC	Calcutta Medical College
GMC	General Medical Council
GOI	Government of India
IMS	Indian Medical Service
LMS	Licentiate in Medicine and Surgery
MB	Bachelor of Medicine
NAI	National Archives of India
SNDMA	Saroj Nalini Dutt Memorial Association
VLMS	Vernacular Licentiate in Medicine and Surgery
WBSA	West Bengal State Archives
WMS	Women's Medical Service

Glossary

Antahpur—Inner quarters of the Bengali household inhabited by women.

Antahpur Siksa--- Home Tutoring.

Autcowroy—A ceremony performed on the eighth day of the birth of the child in the Hindu household where eight kinds of parched peas, rice and sweetmeats along with cowries were distributed amongst the children of the house and the neighbourhood.

Anturghar---- The small room located in an isolated corner of the household where women spent the period of seclusion before and after the birth of her child.

Bahir---Outside world.

Bas Bhaban—Drawing room.

Bhadralok--- Gentlemen or western educated urban intelligentsia in nineteenth century Bengal.

Bhadramahila--- Gentlewomen. Female counterpart of the *bhadralok*.

Bhandar Bhaban—Kitchen.

Bharat Mata—Mother India.

Bustee—Slum.

Chakri—Job.

Daktar—Practitioners of western medicine.

Daktari—Western Medical Practice.

Dal—Lentils.

Desiya—Local.

Dhais— Traditional birth attendants.

Dhatribidya---The art of midwifery.

Garbhadhan—The act of consummation which also forms the first of the sixteen rituals of the Hindus.

Garbhinir Paricharya—Care of pregnant woman.

Griha--- Home.

Grihini---Females in charge of household management.

Grihakatri---Female head or mistress of the household.

Hariloot—Vaishnava practice which observed a much shorter period of seclusion for pregnant women and declared the mother and the infant clean after a simple ceremony.

Janani---Mother

Jatikkhoy—Deterioration of race.

Jatiya Svasthya—National health.

Jhal— Hot and spicy.

Kaviraj---Practitioners of Ayurveda medicine.

Kulin— Good family from the three upper castes of Brahmin, Vaidya and Kayastha.

Lajja—Shame.

Madhyabitta shreni—Educated middle class.

Mahila Samiti---Women's organizations formed in Bengal from the late nineteenth century.

PechoyePawa--- Neonatal tetanus affecting infant immediately after birth and causing death in most cases.

Purdah—Literal meaning is curtain. It denotes the practice of seclusion of Indian women.

Purdahnashin—Women behind curtain/women in seclusion.

Ramanir kartabya---Duties of a woman.

Saadh—Ceremony performed for feeding the pregnant woman delicacies of her choice few days prior to her delivery.

Santan Palan—Child Rearing.

Shajya Bhaban—Bedroom.

Shastras---Hindu scriptures written in Sanskrit language explaining religious and legal ideas that underscored the Hindu way of life.

Shasthi—Folk Goddess regarded as the protectress of children.

Sisu—Infant.

Sisu palan---Infant rearing.

Sutikagriha—Place or site of birth in a Bengali household.

Sutikajor—Puerperal fever.

Svasthya--Health

Svasthya raksha--- Preservation of health.

Thaap—Fire.

Thana—Police Station.

Vhaat—Cooked rice.

Vidhata—God.

Zamindar---Landowner.

Zenana – Secluded Quarters of a respectable household inhabited by its women (Same as Antahpur).

Introduction

It is sometimes argued that child-bearing is a normal physiological process of the body, automatic, self-regulating and entirely remote from disease. Ideally this may be so, but without the doctor and the nurse this process is associated with a maternal mortality in the neighbourhood of 25 per 1000, and an infantile mortality which in India may be as high as 35 per cent...Clearly if the medical profession are not to see obstetrics pass from their hands to the midwives, it is essential that they undertake to attend cases of childbirth, not only in those hospitals and maternity homes to which they have access, but also in the house of the people, and much of this work among the poorer classes must of necessity be free and subsidized.¹

This statement by Major G.G. Jolly, the then director-general of the Indian Medical Service (IMS)² in an address to the Delhi Maternity Services Co-ordination Committee in 1940, succinctly brings out the essence of medicalization of childbirth. Pregnancy, by Jolly's definition, could ideally be a natural physiological process, but it had the potential of falling into the category of disease if not supervised by medical professionals from its onset. Preventing birth from going back to the control of midwives was, according to Jolly, not only a panacea for maternal and infant mortality but also a matter of utmost priority to the medical profession in India. The medical profession should therefore, consider attending pregnant women across class divides as a major social obligation. The crux of Jolly's argument was medical control of pregnancy and childbirth. The thesis explores the ways in which medical control over pregnancy and childbirth was established in colonial Bengal. The key question is: what were the circumstances in which medicalization of childbirth became a priority across the period c.1860s-1940s?

¹ G.G. Jolly, 'The Need for Co-operation in the Medical Health Services of India with Special Reference to Maternity and Child Welfare, *Indian Medical Gazette*, April 1940, Vol. 75, No.236, p.236.

² Major General G.G. Jolly was the director-general of the IMS from 1939 to 1943 and became the chief commissioner of the Indian Red Cross Society. He was involved in the public health movement in India. His views were quoted by eminent nationalist obstetricians like Subodh Mitra in arguing for medical supervision of childbirth. Jolly's view was widely shared by the Bengali doctors in the 1930s and 1940s.

In colonial India, medicalization of childbirth has so far been associated by historians with three key themes: the attempt to reform or ‘sanitise’ the *zenana* (secluded quarters of a respectable household inhabited by its women) as the chief site of birthing practices, establishing lying-in *pardah* (literal meaning curtain. Denoted seclusion) hospitals which were run entirely by female doctors and lastly, replacing the allegedly ‘barbaric’ ‘ignorant’ traditional birth attendants or *dhais* with trained midwives and qualified female doctors. It was overall a process driven by colonial officials, missionaries, medical professionals, voluntary bodies and interested private individuals.³ Using Bengal as a case study, this dissertation however seeks to trace the beginning of medicalization of childbirth in the process of inclusion of midwifery as an academic subject at the Calcutta Medical College (CMC). It attempts to demonstrate how the introduction of midwifery education at the Medical College reshaped existing views on birthing practices and went on to reflect a wider social and political movement that sought medicalization of childbirth in the name of modernity and nation. One of the key aims of the dissertation is to analyse how medicalization of childbirth was intrinsically shaped by social reform movement of the nineteenth century and nationalist politics and colonial public health policies of the twentieth century. It focuses predominantly on those who generated the debates in favour of medicalizing and professionalizing midwifery as much as on those who were actively involved in medicalizing birth such as the doctors, midwives and the public health workers.

The drive for reforming midwifery practices and medicalizing childbirth began in Bengal as part of the modernizing impulse of the western educated intelligentsia in the second half of the nineteenth century. By the twentieth century, the rationale guiding the process had substantially changed in the period of intense nationalist activity. The thesis aims to analyse the changing terms of the discourse prompting medicalization of childbirth across a period of eighty years.

The term discourse is used throughout the thesis in Foucauldian sense to refer to a group of statements that provide the language for the construction of knowledge, that knowledge being firmly grounded in issues of power. Hence, discourse constrains and also enables, at the same time, what is to be written, spoken and thought. In other words, it excludes that which is not connected to mechanisms of power.

³ Sarah Hodges, *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006), p.5.

Power in Foucauldian analysis is not something imposed from the top, but operates at multiple levels which Foucault has described as ‘microphysics of power’. In describing the mechanisms of power Foucault focuses on disciplines as a new mechanism of power that emerged in the eighteenth century and was distinct from power exercised by the sovereign. Disciplinary power could be exerted in prisons, schools, hospitals and libraries, in the everyday life of individuals so that power cannot be ‘conceptualized as a possession or a privilege; rather it is considered to be exercised through “dispositions, manoeuvres, tactics, techniques, functionings.”⁴

I have used the term discourse to refer to the new kind of knowledge about health and childbearing practices that was generated by the introduction of western medical science at the Calcutta Medical College and its links with colonial power that sponsored western medicine and supported western scientific thought. Colonial power and notions of colonial modernity gave legitimacy to those scientific ideas about health and midwifery that were appearing in popular print from the late nineteenth century and came to constitute the dominant/hegemonic discourse that marginalized local/ indigenous midwifery practices.

In the era of nationalism, the centrality of the political notions of nationhood that were emerging after the Swadeshi Movement in 1907, marked a discursive shift. Nationalist thought was a discourse of power. The ideologies of nationhood were transmitted through the new rhetoric of nationalism which were directly connected with Bengali middle class aspiration for power and hegemony. Yet as Partha Chatterjee has argued, nationalist thought could not be considered as independent of post Enlightenment bourgeois-rationalist knowledge, which wove a web of colonial domination in the name of universalism.⁵ The thesis argues that despite promoting medicalization of childbirth in nationalist terms, the movement for maternal and infant welfare that was spearheaded by Bengali medical professionals and public health workers in the inter-war years, embraced a rational approach towards birth that drew heavily on western medical science and technology and hence, remained embedded in the post-Enlightenment bourgeois-rationalist approach.

⁴ Barry Smart, *Foucault, Marxism and Critique* (London, Boston, Melbourne and Henley: Routledge and Kegan Paul, 1983), pp.86-87.

⁵ Partha Chatterjee, *Nationalist Thought and the Colonial World: A Derivative Discourse*, 2nd Ed.(London:Zed Books, 1993), p.11

Bengal: An Outline

Bengal was the earliest seat of British power in India, being referred to by P.J. Marshall as the 'British Bridgehead.'⁶ It was also the first region to experience contact with western education, culture and thought. The contributions of the British Orientalists like William Jones, William Carey, James Prinsep towards studying Indian history, archaeology and philology were central to the interface between Bengal and the West.⁷ The consequent revitalization of Bengali intellectual life in the early nineteenth century has been termed 'Bengal Renaissance'. This, according to David Kopf, constituted an era of 'historical rediscovery, linguistic and literary modernization, and socio-religious reformation.'⁸

However, the administrative and commercial needs of the expanding colonial empire led to Orientalist forms of learning being jettisoned in favour of English education. Following the Anglicist T.B. Macaulay's much publicised minute, Governor General William Bentinck passed the English Education Act of 1835. The Act, in the opinion of Gauri Viswanathan, not only introduced English language into the educational curriculum of the Indians but also constituted a potent tool for the dissemination of European moral and religious values. However, it was Sir Charles Wood's famous Despatch of 1854 which delinked English education from its moral and religious objectives and tied it to the overtly secular motive of furtherance of political economy of the British.⁹ The aim was therefore, to 'teach the natives of India the marvellous results of the employment of labour and capital, rouse them to emulate us in the development of the vast resources of their country.'¹⁰ The English educated middle class which came into being was known as the *bhadralok* (literal meaning the

⁶ P.J. Marshall, *Bengal: The British Bridgehead: Eastern India, 1740-1828* (Cambridge: Cambridge University Press, 1987).

⁷ The orientalist, as David Kopf describes, were a 'group of "acculturated" civil, military and judicial officials (and some missionaries)' who worked as the representatives of the British nation in the early history of the establishment of colonial rule in India, ie, roughly between the 1770s to the 1830s. The Orientalists were not concerned with preserving exclusive racial privilege and distance from the natives. Hence, they formed 'enduring relations' with the 'Bengali intelligentsia to whom they served as sources for knowledge of the West and with whom they worked to promote social and cultural change in Calcutta.' See, David Kopf, *British Orientalism and the Bengal Renaissance* (Berkeley and Los Angeles: University of California Press, 1969), pp.4-5.

⁸ Kopf, *British Orientalism and the Bengal Renaissance*, p.3.

⁹ Gauri Viswanathan, *Masks of Conquest: Literary Study and British Rule in India* (New York: Columbia University Press, 1989), pp.44, 146.

¹⁰ Quoted in Viswanathan, *Masks of Conquest*, p. 146.

‘gentlemen.’). The access of the bhadralok to English education and colonial professional work culture shaped middle-class identity in Bengal and was a central factor in the socio-cultural transformations spearheaded by them in the nineteenth century.

Bengal was also the place where the earliest and the most elaborate medical establishment along western medical lines was established from the early nineteenth century. The foundation in 1835 of the CMC that institutionalized western medicine in India was, according to Mel Gorman, a shining proof of Bengal’s transforming social conditions and receptivity to western ideas and practices.¹¹ Yet Bengal lagged behind Madras in the sphere of midwifery education. Sean Lang has demonstrated how Madras was far ahead of Bengal and Bombay in terms of the popularity of its state-sponsored lying-in hospital which was established in 1844. The Madras hospital played a significant role in creating a class of trained Indian midwives who practised successfully in various parts of the Madras Presidency. The superior quality of the Madras Lying-In Hospital, according to Lang, ‘proved a useful weapon for the Government of Madras in its long-running rivalry with the presidencies of Bombay and especially Bengal.’¹² In Bengal, on the contrary, a lying-in ward was established in 1841 but its success in training the dhais was rather dubious. While it is true that the training of dhais was instituted in the Dacca Mitford Hospital in the 1870s and piecemeal efforts were also made by the CMC from the 1860s and 1870s and by the Eden Hospital in the 1880s, it was, as Geraldine Forbes reminds us, never as successful in Bengal as in Madras and later in Punjab, Sindh and few other states.¹³

Official correspondence and writings of medical professionals attributed Bengal’s backwardness in institutionalizing midwifery to the long standing perception of childbirth and women’s health as exclusively ‘female regulated domains’ guarded by practice of seclusion amongst Bengali women and hence impenetrable by western medicine.¹⁴ Similar perceptions prevailed in nineteenth century Europe where midwifery was ‘stigmatized’ as

¹¹ Mel Gorman, ‘Introduction of Western Science into Colonial India: Role of the CMC’, *Proceedings of the American Philosophical Society*, Vol.128, No.2, Sept.1988, pp.276-298.

¹² Sean Lang, , ‘Drop the Demon Dai: Maternal mortality and the state in Colonial Madras, 1840- 1875’, *Social History of Medicine*, Vol.18, No.3, 2005, p.377.

¹³ Geraldine Forbes, ‘Education to Earn: Training Women in the medical professions’, in *Women in Colonial India: Essays on Politics, Medicine, and Historiography* (New Delhi: Chronicle Books, 2005), pp. 106-107.

¹⁴ Margaret Ida Balfour and Ruth Young, *The Work of Medical Women in India* (Oxford: Oxford University Press, 1929), WBSA (West Bengal State Archives), Proceedings of the Lieutenant Governor of Bengal, General Department, Medical Branch, Progs No.1-7, August 1867.

part of women's everyday domestic and reproductive functions and hence to be avoided by male medical professionals.¹⁵In Bengal, however, the prevalent cultural practice of seclusion or purdah amongst Bengali females was used as a more convenient trope by the Government and the CMC authorities in justifying their reluctance to finance the institutionalization of midwifery. The colonial Government was apparently more keen on safeguarding the health of the army and the European population than tending to the physical well-being of native women.¹⁶In this context, this thesis seeks to ask: How much of the process of institutionalization of midwifery was hindered by the presumed cultural constraints in the Bengali society? Who generated the debate to reform midwifery and transform it into the specialized science of obstetrics? Were the male doctors completely marginalized in the process of transition from female controlled midwifery practices to professionalised obstetrics due to the prevalence of the custom of seclusion?

The first major attempt at modernizing childbirth began in Bengal in the 1860s as part of the reformist response to the colonial critique of certain deeply embedded socio-cultural practices of the Bengalis. The bhadralok social reformers, particularly the Brahmos¹⁷ were more sensitive towards those social customs and practices that were readily condemned by the western critics as signifiers of the debased status of women in Indian society, underscoring the inferiority of Indian civilization. These included *sati* or the self-immolation of widows, widowhood and *Kulin* polygamy. However, Meredith Borthwick argues that the impetus for reform also stemmed from certain 'indigenous reasons.' The customs of *sati*, ban on widow remarriage and *kulin* Polygamy which often resulted in child widowhood led to a large number of women being left barren and were therefore, held responsible by reformers, some of whom belonged to *Kulin* Brahmin families, for the dwindling number of Kulins.¹⁸ The

¹⁵ Ann Oakley, 'Wisewoman and Medicine Man: Changes in the Management of Childbirth' in Juliet Mitchell and Ann Oakley ed., *The Rights and Wrongs of Women* (Middlesex: Penguin Books, 1976), p.33.

¹⁶ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley, Los Angeles and London: University of California Press, 1993).

¹⁷ Brahmos were a reformist sect who rose to prominence in Bengal in the 1840s and 1850s and spearheaded major social reform movements in the nineteenth century.

¹⁸ Meredith Borthwick, *The Changing Role of Women in Bengal, 1849-1905* (Princeton: Princeton University Press, 1984), p.37.

main concerns of the reformers, in other words, were not women. As historians argue, little or no subjectivity was accorded to women to speak for themselves.¹⁹

Women's health and child bearing, perceived as quotidian aspects of female centred domesticity, did not figure in the reformist agenda of the first half of the nineteenth century. The question therefore is: what made childbirth an area of concern in the second half of the century? The period witnessed the emergence of a Bengali public sphere that was enabled by the growth of a vibrant print culture from the 1860s. Commenting on the importance of the print culture in shaping middle class identity, Tanika Sarkar states that, 'Print revolutionised reading habits and possibilities...within the confines of a limited class, reading became a non-specialised, fluid, pervasive, everyday activity...a cross-section of thinking men, and even a few exceptionally fortunate women, could, without formal learning, develop and express ideas within a public debate over the shape of their own daily lives.'²⁰ Print brought into the public sphere issues such as marriage, domesticity and childbearing practices which previously belonged exclusively to the private sphere. The publication of an increasing number of vernacular literary and women's magazines created a space for the Bengali intelligentsia to debate cultural and social issues of the time. The discussions were often coloured by nationalist ideas, although mostly remaining outside the ambit of direct political activity.²¹

The new socio-economic conditions of existence ushered in by colonial rule prompted reconfiguration of the role of women as 'helpmates' and enlightened companions.²² The Census of 1872 testified to a growing number of Bengali males moving out of their native

¹⁹ A number of scholars like Lata Mani, Mrinalini Sinha have discussed how Indian women were deprived of any agency in the reform initiatives of the colonial state or the indigenous male elites. For details see, Lata Mani, *Contentious traditions: The debate on Sati in colonial India* (Berkeley: University of California Press, 1998); Mrinalini Sinha, 'Gender in the critiques of Colonialism and Nationalism: Locating the Indian Woman' in Tanika Sarkar & Sumit Sarkar ed., *Women and Social Reform in Modern India: A Reader* (Indiana: Indiana University Press, 2008); for a detailed critique of patriarchy from Indian feminists' point of view, see Kumkum Sangari and Sudesh Vaid ed., *Recasting Women: Essays in Indian Colonial History*, (New Brunswick, NJ: Rutgers University Press, 1990)

²⁰ Tanika Sarkar, 'Hindu Wife, Hindu Nation: Domesticity and Nationalism in Nineteenth-Century Bengal' in *Hindu Wife, Hindu Nation: Community, Religion, and Cultural Nationalism* (New Delhi: Permanent Black, 2000), pp.27-28.

²¹ Samarpita Mitra, 'The Literary Public Sphere in Bengal: Aesthetics, Culture and Politics, 1905-1939', PhD Dissertation, (University of Syracuse, 2009), Introduction.

²² Borthwick, *The Changing Role of Women*.

districts to Calcutta and its neighbourhoods in search of clerical jobs in 'commercial houses' and 'public offices'.²³ For many such middle-class professionals, repositioning of women as enlightened wives and mothers in a reformed domestic terrain became integral to the process of adjustment to the changed conditions of existence under colonial regime.

Reason became central to the process of reforming domesticity and reconceptualising a new enlightened woman (who came to be known as *bhadramahila*) as opposed to the traditional women of the past. Victorian ideas of domesticity profoundly influenced the restructuring of domesticity, familial relations, and the hygienic and health practices in the Bengali household. In a series of articles written by male authors and entitled '*Ramanir kartabya*' (duties of a woman) Victorian notions of cleanliness, discipline and order were upheld while certain existing Bengali practices of domesticity and child rearing were shunned as primitive. It largely depicted an exclusive male attempt to situate their women in a reformed domestic terrain.

Motherhood was integral to the definition of the new woman or *bhadramahila*. According to Meredith Borthwick, it 'had attained the status of an occupation, a vocation so complex that only a well-educated woman could manage it.'²⁴ Writings on maternity and child-care such as Shib Chunder Deb's *Sisu Palan* (Child-Rearing) or Gangaprasad Mukhopadhyay's *Matrishiksha* (Education of Mother) were in wide circulation from the 1860s.²⁵ As early as 1867, *Bamabodhini Patrika*, the earliest women's magazine run by the Brahmos denounced the practice of choosing the 'smallest and the most 'ill-ventilated' room as the site of birth (*anturghar*) which, according to it, was the sign of 'irrational' practices of the 'uneducated' women causing the death of new-born infants.²⁶

The *bhadralok*'s interest in reforming women's childbearing practices also stemmed from their broader engagement with health and physical well-being that surfaced during the second half of the nineteenth century. Moreover, the foundation of the CMC which introduced anatomy as a medical discipline accounts for their interest in the anatomical details of human

²³ H. Beverley, *Report on the Census of Bengal, 1872* (Calcutta: Bengal Secretariat Press, 1872), p.140.

²⁴ Borthwick, *The Changing Role of Women*, p.184.

²⁵ Shib Chunder Deb, *Sisupalan, Part I* (Serampore,: Mission Press, 1857), Part II (Calcutta, 1868); Gangaprasad Mukhopadhyay, *Matrisiksha* (Calcutta: 1871).

²⁶ See '*Dhatribidya: Sutikagar* (The Art of Midwifery: Site of Birth)' *Bamabodhini Patrika*, Vol.3, No.52, November, 1867, p.636.

body. Knowing the body also became part of female education through home tutoring. Essays on biological functions of human body and rational redefinition of health practices appeared frequently in women's magazines from the second half of the nineteenth century. From 1867 onwards, such writings called for the dislodging of midwifery from the complex field of rituals and cultural practices and redefined it as a medical science. The thesis will analyse such scientific injunctions on pregnancy and childbirth that were disseminated through women's magazines in nineteenth century Bengal. To what extent were such writings influenced by the new clinical paradigm and knowledge practices introduced by the CMC?

While the foundation of the CMC and attempts at reforming midwifery point to a steady flow of western medical ideas into the socio-cultural life of Bengal, certain other socio-political developments of the 1870s complicated this process. The decade witnessed the gradual consolidation of a religious-revivalist sentiment amongst the Bengalis that pivoted around the assertion of a distinctly Hindu identity and reviving, although selectively, some of the traditional practices of the past. It stood to reject what was overtly associated with colonialism.²⁷ In this particular milieu, western allopathic medicine²⁸ identified as state medicine, jostled for space in popular print with other medical discourses such as Ayurveda and Homeopathy and was often rejected as a colonial import. As Tanika Sarkar has argued, this phase also led to a renewed assertion of male patriarchal control over Hindu wives whose bodies were imagined as 'pure and unmarked, loyal to the rule of the Shastras.'²⁹

Drawing upon the prevailing cultural revivalist mood of the time, a certain section of the bhadralok sought to protect the 'uncolonized' domestic terrain from colonial intervention, a fact that accounted for the fervent opposition of the Bengalis to the Age of Consent Bill of 1890. The Age of Consent Bill constituted a major colonial legal attempt to raise the age of

²⁷ Amiya P. Sen, *Hindu Revivalism in Bengal, 1872-1905: Some Essays in Interpretation* (Delhi: Oxford University Press, 1993); Kamala Sen, 'Prasuti Mangal (Maternal Welfare)', *Bangalakshmi*, Vol.5, No.9, August 1931.

²⁸ I have deliberately stuck to the term 'allopathy' throughout the chapter. In a recent illuminating article, Shinjini Das has argued that the term allopathy was not consciously used by the colonial state to propagate western medicine at least till the early part of the nineteenth century. Rather terms such as 'official medicine' 'state medicine' or 'English medicine' were copiously used in official correspondences. The term 'allopathy' was circulated and popularized as the most accepted term for state sponsored western medicine in Bengal through scientific polemics that became a regular feature of popular print in the second half of the nineteenth century. For details see, Shinjini Das, 'Debating Scientific Medicine: Homeopathy and Allopathy in late Nineteenth Century Medical Print in Bengal', in *Medical History*, Oct 2012, Vol.56, No.4, pp.463-480.

²⁹ Sarkar, 'Domesticity and Nationalism'. Shastras broadly referred to Hindu scriptures composed in Sanskrit which explained religious and legal systems ideas which underscored the basis of the Hindu way of life.

sexual consummation of marriage for women from ten to twelve.³⁰ At the peak of the controversy surrounding the Bill, the revivalist-nationalists ignored medical opinion on the evils of child marriage and early maternity and prioritised *Shastric* injunctions on the need for retaining the purity of female body. However questions still remain as to whether or not debates on child marriage and early maternity were completely marginalized in popular print culture in the wake of the Age of Consent controversy. The thesis will explore the extent to which they did recur in the nationalist discourse of the early twentieth century and influenced public debate on maternal and infant health.

Coming to nationalism, the *Swadeshi* movement which was launched in 1907 as a mark of protest against the partition of Bengal in 1905 by Lord Curzon brought to the foreground the nationalist imagination of Bengal and later India.³¹ The idea of nation became particularly powerful in the aftermath of this movement and so was the rhetoric of nation-as-mother. In this milieu, maternal and infant mortality acquired centre-stage in the nationalist discourse since loss of maternal and infant life challenged Bengal's and then India's viability as a nation. Concerns for nation and future of the race were expressed in the pages of vernacular magazines from the beginning of the twentieth century and became an emotive subject when linked to the imagery of nation-as-mother. The census reports, the annual reports of the Health Officer of the Calcutta Municipal Corporation and the reports of the Public Health Commissioner of Bengal revealed high infant mortality rates in Bengal and confirmed the fear of the nationalists. The thesis seeks to analyse the extent to which the rationale of nationalism underscored the drive for medicalization of childbirth in the twentieth century? In particular, it attempts to understand how the issue of infant and maternal mortality that acquired centrality in the Bengali public discourse of nationalism was linked to the questions of reforming birthing practices and professionalizing midwifery in the inter-war years.

In the post-1918 years, maternal and child health assumed greater significance in the Bengali public discourse, which was a reflection of similar concerns in England about the dwindling physical strength of the soldiers sparking off initiatives to save infant life. Interests in preserving infant life had long been expressed in England with the improvement in the standard of public health work, more prominently since the Anglo-South African (Boer) War of 1899. However, the value of maternal life as a factor determining the birth of healthy

³⁰ Charles Heimsath, 'The Origin and Enactment of the Indian Age of Consent Bill, 1891', *The Journal of Asian Studies*, Vol.21, No.4, August 1962, pp.491-504.

³¹ Sumit Sarkar, *The Swadeshi Movement in Bengal, 1903-1908* (New Delhi: Permanent Black, 2010).

infants was increasingly realised and brought to the fore in the post-1918 years. It became entwined with eugenic discourse on the improvement of race. The thesis seeks to understand the extent to which concerns for maternal life in Bengal reflected global eugenic discourse of the time that argued about the centrality of race in the process of national regeneration. What was the specific nature of the argument on racial improvement that took shape in Bengali nationalist discourse? How were the nationalist rhetoric of motherhood and race deployed by the Bengali doctors in the inter-war years in promoting professionalization of obstetrics?

By the 1920s, the culture of mass politics engendered by Gandhian nationalism weakened the ties with cultural revivalism. The Bengali nationalists were no longer obsessed with Shastras and religious injunctions but instead chose to embrace a more secular approach towards nation building activities. It also signified a renewed penchant for western allopathic medicine, which, as David Arnold reminds us, became part of their own cultural and political rhetoric.³² In this milieu the loss of maternal and infant life were being recognized as potent hurdles in the nation-building process. In what ways did the idioms of maternal and infant health acquire a space in the nationalist discourse? Did that allow and legitimise interventionist practices in obstetrics in the late colonial period?

Historiography

The thesis seeks to analyse the constitution of a medical discourse on midwifery in Bengal that led to the institutionalization of midwifery and the modernization of birthing practices within the framework of western scientific medicine. It focuses, in particular, on the role of medical professionals, both male and female, in linking the demands for professionalization of midwifery to the broader social reform movements and nationalist politics that also significantly concerned the condition of women in society and public health issues in Bengal in the inter-war years.

Scholarly interest in the history of medicalization of childbirth can be seen as part of a broader engagement with the social history of medicine. As a budding discipline in the 1980s, social history of medicine derived much of its sustenance from the writings of Roy Porter on various aspects of western medicine as the harbinger of modernity in the Enlightenment and

³² Arnold, *Colonizing the Body*, p.241.

post-Enlightenment era.³³In India, social history of medicine initially derived sustenance from historical study on the evolution of diseases and medicine that assumed critical importance in the light of its deep-seated association with the forces of British colonialism and empire building process. The publication of two edited volumes by David Arnold and Roy Macleod in 1988 were pioneering scholarly attempts to dwell on the interaction between Western medicine and the indigenous societies in the broader context of colonialism.³⁴

Historical scholarship, in the beginning was, restricted to analysing western medical intervention in epidemic diseases or evaluating colonial policy on sanitation and public health in various Indian towns and cities.³⁵There have also been significant historical works on the impact of colonial state's promotion of western medicine to displace indigenous medical systems and the responses it evoked from the indigenous practitioners known as *vaid*s and *hakims*.³⁶Scholars have also engaged in a thorough critique of the colonial medical policies through an analysis of the growth of medical institutions, hospitals, pharmacies, colonial

³³ The diversity of Porter's scholarly output on social history of medicine included exploring the history of doctor-patient relationship in pre-modern England, examining the socio-cultural history of quacks in pre Victorian England studying social history of madness and finally, researching on the evolution of medicine across cultures. Some of his remarkable works relating to the themes mentioned are: Dorothy Porter and Roy Porter, *Patient's Progress: Doctors and doctoring in Eighteenth Century England* (Stanford: Stanford University Press, 1989); *Health for Sale: Quackery in England, 1660-1850* (New York: Manchester University Press, 1989); *Madmen: A Social History of Madhouses, Mad doctors and Lunatics* (Stroud: Tempus, 2004); *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present* (London: Harper Collins, 1997).

³⁴ David Arnold ed., *Imperial Medicine and Indigenous Societies* (Manchester: Manchester University Press, 1988) and Roy MacLeod and Milton Lewis ed., *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion* (London: Routledge, 1988) A similar link between Empire, race, science and medicine has been traced by Warwick Anderson in the context of American colonization of Philippines. See Warwick Anderson, *Colonial Pathologies: American Tropical Medicine, Race and Hygiene in the Philippines* (Durham: Duke University Press, 2006).

³⁵ The history of colonial medical intervention during epidemics and the indigenous responses have been dealt with in depth by David Arnold, I.J. Catanach etc. See for instance, David Arnold, 'Small Pox and Colonial Medicine in Nineteenth Century India', in Arnold ed., *Imperial Medicine and Indigenous Societies*, pp.45-65. Also see I.J. Catanach, 'Plague and the Tensions of Empire: India, 1896-1918', in Arnold ed., *Imperial Medicine and Indigenous Societies*, pp.149-171. Imperial initiatives in public health and sanitary reforms have been criticised by Radhika Ramasubban and David Arnold. For details, see Radhika Ramasubban, 'Imperial Health in British India, 1857-1900', in MacLeod and Lewis ed., *Disease, Medicine and Empire* and David Arnold, 'Medical Priorities and practice in Nineteenth-Century British India', *South Asia Research*, No.5, 1985, pp.167-183. For a more balanced view on the impact of colonial health and sanitary measures, see Roger Jeffery, *The Politics of Health in India* (Berkeley, Los Angeles and London: University of California Press, 1988) and Mark Harrison, *Public Health in British India: Anglo-Indian Preventive Medicine 1859-1914* (Cambridge: Cambridge University Press, 1994).

³⁶ Poonam Bala, *Imperialism and Medicine: A Socio-Historical Perspective* (New Delhi: Sage Publications, 1991), Deepak Kumar, 'Medical Encounters in British India, 1820-1920', *Economic and Political Weekly*, Vol.32, No.4, Jan.1997, pp.166-170.

medical services and research institutes that were described as mere ‘instruments of the empire.’³⁷

David Arnold however refutes the contention that western medicine was merely a tool of imperialist expansion. The hegemony of western medicine, he argues, was not realized solely through the agency of colonial ruler but majorly through the intervention of Indian colonized elites who, by early twentieth century had internalized western medical discourse to suit their own political and professional agendas.³⁸ Roy MacLeod and Milton Lewis’s contention that ‘Western medicine...is a cultural force...a cultural agency in itself, and....an agency of western expansion’³⁹ compels one to go beyond this narrow perception of western medicine as a state weapon or ‘tool of empire.’⁴⁰ It is in the context of such historical debates that the story of western medicine penetrating the cultural and virtually ‘uncolonized’ space of the Indian homes inhabited by the women, assumes historical significance. Following Arnold’s contention that women’s health ‘assumed a prominent and emblematic position in debates over the nature and authority of Western medicine,’⁴¹ a number of scholars since the 1990s have contributed to the research on women’s reproductive health and childbirth in colonial India.⁴²

³⁷ This point has been made by Anil Kumar who is by the only South Asian scholar to have worked extensively on the history of medical institutions like hospitals and dispensaries which evolved under colonial auspices. Anil Kumar, *Medicine and the Raj: British Medical Policy 1835-1911* (New Delhi: Sage, 1998).

³⁸ Arnold, *Colonizing the Body*, p.294.

³⁹ MacLeod & Lewis eds., *Disease, Medicine and Empire*, p.1.

⁴⁰ This is a famous phrase used by Daniel Headrick. See Daniel R. Headrick, *Tools of Empire: Technology and European Imperialism in the Nineteenth century* (Oxford: Oxford University Press, 1981).

⁴¹ Arnold, *Colonizing the Body*, p.254.

⁴² Some of the earliest work on the history of midwifery and childbirth were Geraldine Forbes, ‘Managing Midwifery in India’, in Dagmar Engels and Shula Marks eds., *Contesting Colonial Hegemony: State and Society in Africa and India* (London: German Historical Institute, 1994), pp 515-30; Anshu Malhotra, ‘Of Dais and Midwives: “Middle-class” Interventions in the Management of Women’s Reproductive Health-A Study from Colonial Punjab’, in *Indian Journal of Gender Studies*, Vol.10, No.2, June 2003, pp. 229-259; Sean Lang, ‘Drop the Demon Dai: Maternal mortality and the state in Colonial Madras, 1840- 1875’, *Social History of Medicine*, Vol.18, No.3, 2005, pp.357-78; Supriya Guha, ‘From Dais to Doctors: The Medicalisation of childbirth in colonial India’ in Lakshmi Lingam ed., *Understanding Women’s Health Issues: A Reader* (New Delhi: Kali, 1998), pp.145-162. A few significant work on the history of medicalization of childbirth in Bengal were Dagmar Engels, ‘The Politics of Childbirth: British and Bengali women in contest, 1890-1930’, in *Beyond Purdah? Women in Bengal, 1890-1930*, (New Delhi: Oxford University Press, 1996), pp.123-161; Chandrika Paul, ‘The uneasy alliance: The work of British and Bengali medical professionals, 1870-1935’, PhD Dissertation (University of Cincinnati: 1997); Supriya Guha, ‘A History of the medicalization of childbirth in Bengal in the late nineteenth and early twentieth centuries’, PhD dissertation (University of Calcutta, 1996).

In Indian historiography, there has been an overemphasis on the role of female doctors in introducing western medical ideas and practices related to childbirth into the Indian zenana. It has been argued that the impenetrability of the zenana was a major factor in promoting female medical education in India and more interestingly, in the professionalization of women doctors in Britain. Antoinette Burton, for instance, has argued that the long held belief of Indian women trapped in 'unhygienic Oriental Zenana' proved to be the central motivating factor in the 'institutionalization of women's medicine and the professionalization of women doctors in Victorian Britain.' The British medical women waged a dual battle against male dominance in institutionalized medicine in Britain and against the less qualified women medical missionaries. For these women doctors trained in the London School of Medicine for Women (LSMW), providing medical care to Indian women 'imprisoned' in Zenana was the only viable way to salvage their professional career. Hence, they projected it as an imperial obligation.⁴³

Geraldine Forbes also considers the colonial scheme to train indigenous women in Bengal as midwives, doctors and hospital assistants as an imperial attempt 'to penetrate the zenana, not with force but with the forceps of the lady doctors.'⁴⁴ Along similar lines, Dagmar Engels argues that, 'Due to the stricter separation of sexes in Bengal than in the west, male dominated medical science was less involved in improving the conditions of mothers and babies, upper-middle class families apart.'⁴⁵ Chandrika Paul's historical study of Bengali women in the medical profession in the nineteenth century, also demonstrates the role of medical women as the mediator between the *antahpur* (inner secluded parts of the house) and the outside world.⁴⁶ More significantly, Supriya Guha in her extensive research on medicalization of childbirth in colonial Bengal concluded that 'the medicalization of childbirth would not have extended to the middle classes with the relative ease with which it did if it were not for the role of medical women.'⁴⁷ While acknowledging the dominance of women physicians in the history of medicalization of childbirth in India, this thesis seeks to

⁴³ Antoinette Burton, 'Contesting the Zenana: The Mission to Make Lady Doctors for India, 1874-1885', *The Journal of British Studies*, Vol. 35, No. 3 July, 1996, pp. 368-397.

⁴⁴ Forbes, 'Education to Earn', p.140.

⁴⁵ Engels, 'The Politics of Childbirth', p.150.

⁴⁶ Paul, 'The uneasy alliance'.

⁴⁷ Guha, 'A History of the medicalization of childbirth', p.194.

turn the spotlight on the male doctors and analyse their role in institutionalizing midwifery education and practice in Bengal. In what ways did they contribute towards the constitution of a medical discourse on midwifery?

A great number of historical works have addressed the institutional expansion of western style midwifery in India, identified with the foundation in 1885 of the 'National Association for Supplying Female Medical Aid to the Women of India', better known as the Dufferin Fund. Founded by Lady Dufferin, the wife of the Viceroy, the Fund was conceived as a training program under official patronage with the explicit aim of providing medical training to nurses and midwives and extending medical relief through dispensaries, female wards, female doctors and female hospitals.

Maneesha Lal has labelled the Fund as the single most important step in the institutionalization of medicine for women in India.⁴⁸ Sean Lang sees the Fund as an 'intensely political organization' whose ultimate aim was as much to change Indian attitudes towards Western medicine and British rule as it was to save life.⁴⁹ Chandrika Paul has however demonstrated the rather limited impact of the Fund in drawing upper-caste *pardahnashin* (literal meaning; women behind veil) Bengali women within the colonizing discourse, much due to its discriminatory policies and also partly due to the middle class Bengali's perception of the Dufferin hospitals as male spaces and colonial institutions.⁵⁰ This thesis while acknowledging the limitations of the Dufferin Fund and its discriminatory hiring policy, tries to analyse how the Fund indirectly helped the spread of western medical practices in the countryside through the agency of the Bengali female licentiate doctors.

The history of institutionalization of midwifery cannot confine itself to the Dufferin Fund which restricted the provision of medical relief to women along class lines and in the process limited the colonizing potential of western medicine. The thesis locates the beginning of institutionalization of midwifery in the 1840s when midwifery was included as an academic subject in the syllabus by the CMC. It also brings to light the pivotal role of the Calcutta Municipal Corporation and the Public Health Department in the 1920s in further

⁴⁸ Maneesha Lal, 'The politics of gender and medicine in colonial India: The Countess of Dufferin Fund, 1885-1888', *Bulletin of the History of Medicine*, Spring 1994, pp.29-66.

⁴⁹ Sean Lang, 'Colonial Compassion and Political Calculation: The Countess of Dufferin and her Fund' in Poonam Bala ed., *Contesting Colonial Authority: Medicine and Indigenous Responses in Nineteenth- and Twentieth Century India* (Plymouth: Lexington Books, 2012), p.93.

⁵⁰ Paul, 'The uneasy alliance', Chapter Five.

institutionalising midwifery by instituting domiciliary midwifery services and establishing a chain of maternity homes that sought to provide professional medical care for pregnant women across class and religious divides. Supriya Guha's detailed historical study on medicalization of childbirth in colonial Bengal has acknowledged the rise of new technologies, patient-doctor relationships and shift in the site of birth as important components of medicalization of childbirth. Yet Guha did not analyse the role of local self-governing bodies in fostering 'hospital habits' amongst Bengali females of all classes, in providing ante-natal care in the form of home-visits and in popularizing western medical practices beyond the key sites of bhadralok activities. In delineating the nature of local self-government's involvement in the maternal and infant welfare activities, the thesis also examines the nature of central government's intervention of in the sphere of health.

The dissertation also draws upon the theoretical insights of western historiography. It draws on Ornella Moscucci's *The Science of Woman: Gynaecology and gender in England, 1800-1929* in which she traces the rise of the discipline of obstetrics and gynaecology in nineteenth century England till the foundation of the Royal College of Obstetricians and Gynaecologists in 1929. Moscucci explicates how the medical profession gradually assumed control over the domain of childbirth and women's diseases by citing the scientific nature of its claims about women's physiology as being inherently pathological.⁵¹ Drawing upon Moscucci's work, this thesis seeks to demonstrate how the medical profession in Bengal clamoured for medicalization of childbirth by disseminating medical-scientific knowledge about pregnancy and childbirth through the popular print media and projecting such knowledge as superior to the existing female-oriented knowledge practices surrounding childbirth.

The thesis also draws upon the work of Ann Oakley in analysing the beginnings of ante-natal work in Bengal. Oakley traces the evolution of ante-natal care in post Industrial Revolution England as part of the broader preoccupation of the state with questions of 'public health' and 'national welfare'. Oakley shows how in collusion with the state, which took care of the social and economic reorganization of medical work, the medical profession strategically deployed technology as a weapon to fortify its professional claims over women's bodies and choices with regard to childbirth. The central message that emerged was 'that pregnant women were themselves deficient: they lacked the necessary intelligence, foresight,

⁵¹ Ornella Moscucci, *The Science of Woman: Gynaecology and gender in England, 1800-1929* (Cambridge: Cambridge University Press, 1990).

education or responsibility to see that the only proper pathway to successful motherhood was the one repeatedly surveyed by medical expertise.’⁵² Bengal being influenced by the pattern of maternal and child welfare work done in England, the thesis will analyse the similarity and also the points of divergence in the progress of ante-natal care in Bengal. It will analyse the extent to which the trope of maternal ignorance was deployed in asserting patriarchal and professional control over women’s bodies. It will also examine the nature of medical supervision that was actually extended over Bengali females under the banner of ‘safe motherhood’ in the nationalist period.

Similarly, Jane Lewis’s work on infant and maternal welfare work in England is integral to understanding the broader politics at work and the way maternal and child welfare work in Britain shaped the perceptions of the medical men and the nationalists in Bengal. Lewis situates maternal and child welfare work in England at the complex conjuncture of conflicting interests between the state, medical establishment, voluntary workers, midwives and women’s organizations. In tracing the evolution of policies on infant and maternal welfare since the Anglo-South African (Boer) War through three phases, each of which in her opinion was fraught with acute inter-professional rivalries, Lewis argues how that eventually brought little benefit to women. Lewis also states how the national concerns for maternal and child welfare work were duly seized by obstetricians in promoting medicalized childbirth and in the process, advancing their own ‘neglected speciality.’⁵³ Lewis’s work outlines how the problem of maternal and infant mortality was perceived solely in terms of maternity statistics, and seen as ‘discrete medical problems’ to be solved through the provision of health visitors, improved maternity services and infant welfare centres. In the process, the social, environmental and economic causes underlying the higher mortality rates were overlooked.⁵⁴ Such trends were evident in Bengal. While the nationalists blamed the economic policies of the Government for the higher mortality rates, the Government denounced the social customs of the Bengalis. The obstetricians however, blamed both and sought the remedy in

⁵² Ann Oakley, *The Captured Womb: A history of the medical care of pregnant women* (Oxford: Basil Blackwell, 1984), p.72.

⁵³ Jane Lewis, *The Politics of Motherhood: Child and Maternal Welfare in England, 1900-1939* (London: Croom Helm, 1980). Apart from England, historical research of similar nature was being conducted in other countries as well. For instance, Philippa Mein Smith has charted the contours of reforms in obstetrics in New Zealand in the inter-war period through a detailed focus on the medicalization of child birth and the evolution of ante-natal care as major themes of analysis. For details, see Philippa Mein Smith, *Maternity in Dispute: New Zealand 1920-1939* (Wellington: Department of Internal Affairs, Historical Publications Branch, 1986).

⁵⁴ Lewis, *The Politics of Motherhood*, p.16.

medicalization of childbirth and improved maternity services. The thesis will examine how the intense nationalist politics in Bengal in the inter-war years shaped the public health discourse on maternal and child welfare.

One of the objectives of the dissertation is to analyse the literate Bengali women's response to issues raised by the modernist *bhadralok*, such as the ills surrounding childbirth, child marriage and early maternity and their impact on future of the race. To what extent did the women differ from the male reformers in their perception of the social inequities experienced by them? The thesis seeks to explicate the point by analysing women's response to questions related to their health, reproductive health in particular. The prioritization of the issues related to the social status of women – or what Partha Chatterjee defined as 'the women's question' was largely a response to the colonial denigration of the lowly and depraved status of women in Hindu society. However, debates on the condition of women, according to some scholars, ceased to figure in the nationalist agenda in the second half of the nineteenth century.⁵⁵ It happened, claimed Partha Chatterjee, because of the 'nationalist resolution of the women's question'. 'The reason', he argues, 'lies in nationalism's success in situating the "women's question" in an inner domain of sovereignty, far removed from the arena of political contest with the colonial state.'⁵⁶ The inner, spiritual sphere of home was perceived to be sovereign and uncolonized as opposed to the outside material world where the colonizers had subjugated and oppressed the colonized by sheer dint of the superiority of their 'material culture'. While the colonized male endeavoured to master modern science and the essence of western materialism in a bid to vanquish the colonizers, the women were reconceptualised in the role of the upholder of the spiritual/uncolonized domain of home. Women were, therefore, to remain insulated from the rigours of the colonial regime and were, in the process, subjected to a 'new patriarchy' that sought to reconstitute them in dress, food,

⁵⁵ Ghulam Murshid, *Reluctant Debutante: Response of Bengali Women to Modernization, 1849-1905* (Rajshahi : Sahitya Samsad, 1985).

⁵⁶ Partha Chatterjee, *Nation and its fragments: Colonial and postcolonial histories* (New Delhi: Oxford University Press, 1997), p.117. A similar argument has been made by Dipesh Chakrabarty. His depiction of the middle class Bengali patriarch's effort to construct the idea of women as *grihalakshmi* (goddess of home) and *kulalakshmi* (upholder of the family lineage) resonates Partha Chatterjee's 'nationalist resolution of women's question'. Women, according to Chakrabarty, emerged as non-autonomous and non-secular entities in the anti-colonial, nationalist discourse framed by the indigenous elites. For details, see Dipesh Chakrabarty, 'The Difference: Deferral of (A) Colonial Modernity: Public Debates on Domesticity in British Bengal', *History Workshop*, No.36, Autumn, 1993, pp.1-34.

manners, and education, in a way that would buttress their femininity and highlight their innate spirituality.

Researchers have questioned Partha Chatterjee's contention for uncritically assuming women's acquiescence to the nationalist resolution of women's question to the extent of being denied any subjectivity or autonomy. Himani Bannerji, for instance, has argued that women far from complying with their newly assigned role as the upholder of the sanctuary of home, were in reality drawn more towards reason, education and politics.⁵⁷ Equally strong was their propensity to flout the norms of patriarchy, a fact repeatedly drawn to attention by other researches that highlight the various subversive ways in which women sought to critique the social inequalities experienced by them.⁵⁸ Drawing upon Bannerji's argument, the dissertation seeks to ask: Did the response of the bhadramahila signify a tacit approbation of the male reformist discourse? Or did they voice critiques of male approved social customs? How did the Indian middle class women in the 1920s and 1930s respond to the nationalist discourse on scientific management of birth and the medical profession's promotion of the idea of medical supervision of pregnancy?

The dissertation pivots around three discursive strands. The first strand attempts to study the formation of a scientific discourse in the second half of the nineteenth century in Bengal that not only touched upon marriage, domesticity and reconceptualization of women, but also focussed considerably on the centrality of health and hygiene in shaping middle class identity. In the drive to sanitise domestic spaces and reformulate health principles, female centred practices including those related to childbearing were shunned as irrational and primitive. In this connection, the thesis analyses the series of scientific injunctions that were being formulated in accordance with the clinical teachings of midwifery instituted at the CMC and were circulated amongst the middle class women in the form of prescriptive essays

⁵⁷ Himani Bannerji, 'Projects of Hegemony: Towards a Critique of Subaltern Studies "Resolution of the Women's Question"', *Economy and Political Weekly*, Vol.35, No.11, March 2000, pp. 902-920. Of late, Charu Gupta has questioned Partha Chatterjee's argument. Gupta's analysis of the reconfiguration of the domestic space in the context of middle-class identity imaginings in colonial Uttar Pradesh' refutes Partha Chatterjee's central theoretical formulation. She argues how debates about domesticity and the centrality of women in the private sphere found their way into the public domain as fluidly as debates raised in the material world ruled by the colonizers were constantly made use of by the middle class men in reconstituting 'home'. For details, see, Charu Gupta, *Sexuality, Obscenity and Community: Women, Muslim and the Hindu Public in Colonial India*, (New York: Palgrave, 2002).

⁵⁸ For instance see Anindita Ghosh, *Behind the Veil: Resistance, Women and the Everyday in Colonial South Asia* (London: Palgrave Macmillan, 2008). Also see Malini Bhattacharya and Abhijit Sen ed., *Talking of Power: Early Writings of Bengali Women from the Mid-Nineteenth century to the beginning of the Twentieth Century* (Kolkata: Stree, 2003), Introduction.

in the Bengali print media from the 1860s. It seeks to understand how this new print culture aided the extension of western medical ideas into the zenana and contributed to the reconceptualization of birth as a medical process.

The second strand is the institutional history of midwifery education in Calcutta. The thesis seeks to outline the process through which midwifery was recast into a medical discipline and incorporated into the syllabus of the CMC. It analyses the layers through which midwifery education was instituted and sustained in Bengal. It examines the nature of the male doctor's participation in the domain of midwifery which has so far been neglected in existing historiography and identifies the ways the roles of female and male physicians complemented each other and contributed to the formation of a western medical discourse on birth.

Lastly, the dissertation delineates the contours of professionalization of midwifery in the twentieth century to see if it derived sustenance from the broader and globally relevant eugenic ideas of 'racial regeneration' and 'national welfare' that came to dominate nationalist debates on public health in India in the inter-war years. Did this emerging discourse lead to an assertion of professional claims over women's bodies and facilitate the trend towards technological intervention in women's reproductive health in Bengal? Were the concepts of 'reformed woman' and 'healthy mother', popularised by social reformers and politicians, also becoming the discursive terrains where the Bengali bhadralok and the medical establishment were strengthening their patriarchal and professional control respectively? This dissertation seeks answers to these questions.

In analysing the shifting strands of midwifery practice in Bengal over a period of eighty years, the dissertation seeks to understand the process through which Bengali woman's body which was once perceived as the citadel of physical modesty and cultural purity and hence, hidden from public sight by patriarchal norms of seclusion, became by the end of colonial period, a subject of intense medical, public and nationalist scrutiny.

Sources

Official/Archival Records---The thesis draws on the proceedings of the Medical and Education branch under the General, Municipal, Judicial and Local Self-Government Department of the Government of Bengal from the 1860s to 1940s. In the light of the official correspondence recorded in such proceedings, the thesis analyses the early debates amongst

colonial medical officials surrounding midwifery education in the nineteenth century and also the controversies which arose in the wake of the withdrawal of recognition of Calcutta University degrees by the General Medical Council in the 1920s. The official correspondence sheds light on the nature of colonial governance in India and the priorities that guided the British officials in the various phases of colonial rule. Yet colonial official records being generated mainly by male bureaucrats in negotiations with indigenous males from elitist backgrounds were marked by absence of female voices and agency. Also the fact that the archives constituted the site where knowledge about the Empire was generated and various modes of colonial governance were evolved implied that its focus was on literate elites. Consequently, certain groups of records which did not directly contribute to the consolidation of colonial authority were excluded. In recognizing these limitations, the thesis draws upon the vast resource of vernacular literary magazines that offer alternative access to the cultural universe of the colonized elites which despite being shaped by colonial modernity was rather autonomous and fluid.

Vernacular (Bengali) literature: The project has made extensive use of Bengali women's magazines such as the *Bamabodhini Patrika*, *Antahpur*, *Bangamahila* and *Bharati*⁵⁹ that offer

⁵⁹ *Antahpur* was started in 1898 and edited first by Banalata Devi and then by Hemantakumari Chowdury and Kumudini Mitra. It was managed entirely by women and the intended audience was literate middle class women who regularly contributed to the journal.

Bamabodhini Patrika was perhaps the most important women's magazine that came into circulation in 1863 through the efforts of the liberal Brahmo reformers who took an active interest in championing the cause of female education. The magazine became the most important vehicle of home tutoring or *antahpur siksa* in the nineteenth century. It published important articles on various subjects pertaining to female education such as geography, science, cookery, literature and health. It remained in circulation for several decades.

Bangamahila was started by the principal of a female school for formal education in 1868. It remained in circulation for only two years. Nevertheless, it was published with a view to educating the zenana women and hence, remains an important source for understanding male perception of women's issues in the nineteenth century.

Bangalakshmi was started in 1924 and continued for a long period. It published matters of moral, religious, scientific and educational importance.

Bharati was edited by Swarnakumari Devi, sister of Rabindranath Tagore. It was a literary magazine of eminence but published important articles on science as well. Apart from *Antahpur*, it was a prominent journal edited by women and was widely circulated for a long period of time. It was one of the longest running magazines in the colonial times

Paricarika was started by Girishchandra Sen. It continued for twenty eight years. It contained essays on child rearing and household management.

meaningful insights into the identity imaginings of the colonized elites and their complex negotiations with modernity beyond the key sites of colonial power. Drawing upon such magazines which were privately published by Bengali elites, the thesis analyses the nature of the modernist/scientific discourse on domesticity, conjugality and motherhood that was taking shape in the private sphere of the Bengalis indicating transformed socio-cultural realities under the colonial regime. The articles in these magazines were usually written by Bengali male reformers and hence, highlighted male perceptions of the redefined role of women as enlightened wives and mothers under the new patriarchy. Towards the end of the nineteenth century, the discussions held by literate women on health, maternity and childbirth were beginning to be recorded. This was also part of the process by which female subjectivity was constituted. Thus, unlike the official/archival records, the vernacular women's magazines highlight female agency and also bring to light the transforming cultural universe of the Bengalis. While appropriating integral aspects of colonial modernity and western scientific thinking, the elites also resisted some aspects of it. The thesis also looks at popular health magazines such as *Svasthya Samacara*, *Svasthya* and *Cikitsa Sammilani* ⁶⁰ that debated and analysed the myriad challenges posed by maternal and infant mortality through the prism of nationalism and eugenics. The debates being initiated by practitioners of western medicine reveal the extent of the internalization of western medical discourse by the colonized elites. As the subscription lists of these journals and magazines reveal, they were read by non-medical lay public including eminent zamindars, lawyers and teachers. Yet the writings in the vernacular popular magazines engaged more with the realm of ideas than with actual transformations in midwifery practices and the evolution of modern maternity care in Bengal. Being aware of such lacuna, the thesis has consulted annual reports of various public institutions and hospitals.

Annual reports: The thesis has consulted annual reports of the Calcutta Medical College and the medical schools of Bengal, the Dufferin Fund, the Calcutta Corporation and the All India

⁶⁰ *Svasthya* started in 1897 and soon established itself as a major vernacular health periodical. It published extensively on plague during plague outbreak in Bombay and Calcutta. It also contained significant articles on social issues related to health.

Cikitsa Sammilani was a prominent journal edited by very eminent medical personalities like Dr Annadacharan Khastagir. It was subscribed by people beyond the pale of medical profession. It contained important writings on allopathy, homeopathy and ayurveda.

Institute of Public Health and Hygiene in order to analyse the development of public health policies leading to institutionalization of midwifery in Bengal. While admittedly, such reports represented the interests of the institutions they were written for, they were still significant in revealing the salient features of the maternal and infant welfare work done in Calcutta and the role of maternity homes and ante-natal centres in spreading the gospel of medicalized childbirth amongst people of all classes in Calcutta in the inter-war years. The success of such schemes is hard to comprehend solely from annual reports. Hence, in order to draw a more comprehensive picture, the thesis has drawn upon newspaper reports, reports on research findings by doctors published under the Indian Research Fund Association and the Bengal legislative council debates.

Medical literature: The thesis has made extensive use of medical journals for an understanding of the emerging medical discourse in the early twentieth century from the perspective of the indigenous medical profession in Bengal. It has drawn upon the English language medical journals which were mouthpieces of the colonial medical establishment such as the *Indian Medical Gazette*. It has also looked at private journals edited independently by Indian doctors such as the *Calcutta Medical Journal*, the *Journal of the Indian Medical Association*, and the *Journal of the Association for Medical Women in India*.

The *Indian Medical Gazette* provides insights into the priorities that guided the colonial government in instituting midwifery education in Bengal, also documenting official view on Indian birthing practices and maternal and infant mortality in the twentieth century. The private journals, on the other hand, widen our perspective by recording the perceptions of Bengali medical professionals and the idioms deployed by them in promoting medical control over birth. Similarly, the *Journal of the Association for Medical Women in India* represents the views of medical women in India on a wide variety of issues ranging from maternal and infant health to gender based professional issues raised by them from time to time. The thesis has also drawn upon medical journals published in the Bengali language such as *Bishak Darpan*, *Cikitsa Prakasa* which offered a platform for the more localised general practitioners to acquire knowledge about midwifery in the light of received ideas from the West and apply them to local conditions. Similarly, pamphlets on the science of reproduction written by Bengali doctors for use of medical students and householders reveal the agency of Bengali medical men in spreading western medical ideas in Bengali households and educating dhais in accordance with western knowledge practices. However, such journals and tracts say little about the doctors themselves, their social and educational backgrounds and

the political inclinations that shape their views on maternal and infant health and midwifery practices.

Chapter Outline

The chapters are arranged thematically. The first chapter looks at the social-intellectual environment within which an indigenous scientific discourse on birthing practices and midwifery was constructed in Bengal between the 1860s and 1900. It looks critically at the contribution of the popular Bengali print media in extending western medical ideas into the culturally secluded sections of Bengali homes. Drawing upon women's magazines, the chapter analyses the scientific sensibilities and the modernizing impulses of the Bengali bhadralok. It traces their pre-occupation with health and the colonial stigma of effeminacy that haunted the middle class throughout the nineteenth century. It then analyses how concerns for health led to women being educated in health science through home tutoring which was one of the prevalent forms of female education. Concerns for infant mortality and the need to ensure the birth of healthy babies were seen as a corrective to the sense of degeneracy haunting the Bengali bhadralok. It led to birthing practices, along with other broader issues of domesticity, conjugality and reconceptualization of women being brought to the centre of a vigorous public debate. The chapter also analyses the responses of some educated women towards such social debates concerning their health conditions.

The second chapter examines the processes through which midwifery was institutionalized and evolved into a medical discipline and an academic subject in Bengal between the 1860s and the 1930s. The various axes around which midwifery was institutionalized included the colonial scheme to train the dhais at the CMC and Eden Hospital. It was followed by the steps taken since 1882 by the College authorities to provide medical education to women. The chapter finally analyses the agency of male doctors in strengthening the discipline of obstetrics through research, experimentation with modern surgical techniques and disseminating such ideas through tracts meant for popular reading and through monographs and essays published in medical journals for medical students. It also touches upon the rise of nationalist sentiments amongst the male doctors that became visible in the wake of the GMC of London's decision to withdraw recognition of medical degrees of the Indian medical colleges in 1924.

The third chapter analyses the professionalization of obstetrics in Bengal between 1900 and the 1940s. It begins by analysing the arguments of Bengali medical men whose concerns for infant mortality echoed eugenic ideas of racial degeneration. The solution was sought in medicalization of childbirth and expansion of modern and professionalized midwifery services. The medical professionals were also at this stage actively seeking to extend their sphere of control over pregnant women's bodies in order to protect them from diseases during pregnancy and giving birth to 'weaklings.' The chapter outlines the contours of maternal and child welfare work undertaken at a semi-official level by the vicereines such as Lady Chelmsford and Reading. Most importantly, it discusses at length, the role played by the Calcutta Municipal Corporation in laying the groundwork for modern maternity care accessible to females of all classes. It goes on to show how the sphere of professionalized obstetrics was shared by male and female doctors bound by common professional ethos.

The fourth chapter examines the growth of the idea of ante-natal care in Bengal, roughly from 1900 till the 1940s. Rudimentary notions of ante-natal care that were disseminated in women's magazines in the late nineteenth century came to be delivered in medical terms by the medical professionals in the inter-war years. The chapter closely examines such writings on ante-natal care in the popular women's magazines and health journals in the early twentieth century. The second part of it analyses the ante-natal work done in Bengal which, lacking state support, was carried out through the initiatives of the Calcutta Municipal Corporation on a pattern similar to that of England and through voluntary bodies such as the Bengal branch of the Indian Red Cross Society, indicating the marginal nature of hospital based ante-natal care. In the ultimate analysis, due to paucity of sources, and despite a powerful public modernist discourse, ante-natal care as it was provided to pregnant women in colonial Bengal was more about advice on diet, clothing and hygiene rather actual facilities for doctor supervised birth.

Chapter One

Scientific Mothers and Healthy Infants: The Birth of a 'Modern-Scientific' Discourse in Bengal, 1860s-1900

No technology carries the force to change institutional arrangements automatically. Nor does a “scientific advance”, by itself, effect change. No technology will gain widespread acceptance and be the basis of reform of culture unless it is introduced into an ideologically fertile social field or unless such a field can be cultivated around it.¹

Taking cue from the above observation made by the eminent sociologist W.R. Arney, this chapter will examine the constitution of a 'modern-scientific' discourse on health, pregnancy and childbirth that evolved in Bengal from the 1860s. Drawing upon nineteenth century popular health journals and women's magazines, it will analyse the extent to which western medical science shaped Bengali middle class perceptions of birthing practices that were subsequently translated into meaningful attempts for reform in the second half of the nineteenth century. The central objective is, therefore, to explore the boundaries of an 'ideologically fertile social field' that emerged in Bengal in response to colonial modernity and to comprehend the extent to which that facilitated the incorporation of western medical ideas into the cultural domain of midwifery.

The spotlight of the chapter being chiefly on the Hindu middle-class (commonly known as *bhadralok*) discourse on health, the discussion is situated at the heart of a self-fashioning project of the *bhadralok* that increasingly rendered itself visible in the textual spaces of the vernacular magazines in the late nineteenth century. In a bid to wrest claims to cultural and political leadership from the colonizers, the middle class stopped short of altogether renouncing colonial modernity, and instead chose to appropriate it in its own terms. The ensuing struggle to reconstitute its 'national yet modern self'² significantly touched upon the

¹ W.R. Arney, *Power and the Profession of Obstetrics* (Chicago and London: Chicago University Press, 1982) p.27.

² Partha Chatterjee, 'Our Modernity' in Partha Chatterjee, ed., *Empire and Nation: Selected Essays* (New York: Columbia University Press, 2010).

most foundational aspect of social life: the family and the most crucial actors of domestic life, the women. Consequently, an entire gamut of concerns pertaining to domesticity, conjugality, health, child-bearing and child-rearing were reconfigured in accordance with the shifting preferences of the middle class. One of the key concerns of the chapter is to show how many of the changes effected by the middle class were driven by modern and scientific sensibilities that overwhelmingly came to influence bhadralok ideology from the 1830s and 1840s, and acquired greater visibility in the burgeoning print culture of the 1860s. Initially however, such reforms were prompted by colonial denunciation of certain socio-cultural practices that were scornfully referred to as decadent and barbaric.

The chapter draws on vernacular women's magazines such as the *Bamabodhini Patrika* (Journal for the Enlightenment of Women), *Bharati* (Women of India), *Antahpur* (The Inner Quarters), *Bangalakshmi* (Goddess of Bengal), *Bangamahila* (Bengali Women) and health journals meant for literate but lay middle class readership such as *Svasthya Samacara* (Health News), *Cikitsa Sammilani* (Health Association) and *Svasthya* (Health). The booming print culture in Bengal in the second half of the nineteenth century enabled the constitution of a discursive forum where the cultural and nationalist imaginings of womanhood were contested, negotiated and reworked. In this context, Samarpita Mitra has recently highlighted the critical role of Bengali periodicals in forging an 'idea of Bengaliness, a particular form of identity articulated in aesthetics and literary terms, invested with its own distinctive cultural and ideological project.'³ Mitra also alluded to the construction of a 'women's sphere' within the textual space of the magazines as an important constituent in the ideological formation of this Bengaliness. A close reading of the women's magazines indicates the centrality of motherhood in redefining womanhood. Elevated notions of motherhood lay at the heart of patriarchal attempts to discipline, regulate and modernize women as the *janani* (mother) and *grihini* (mistress of the home); it formed a powerful pretext for educating the womenfolk about health science including the essentials of reproductive health.

The health magazines also offer important insights for this study, the reasons being manifold. In the recent researches on print-culture and periodicals, the centrality of vernacular health magazines in disseminating medical ideas, promoting health education and determining

³ Samarpita Mitra, 'The Literary Public Sphere in Bengal: Aesthetics, Culture and Politics, 1905-1939', PhD Dissertation (University of Syracuse, 2009), p.61.

public opinion on varied aspects of health has largely been overlooked.⁴ The contribution of such magazines lay in interpreting critical social issues in scientific terms in a manner that would appeal to the modern, rational sensibilities of the middle class readers (men and women).⁵ Most importantly, the magazines enunciated a nationalist vision—of a modern discourse on health as the index for national regeneration.⁶ However, nationalism at this stage spoke more of Bengali-ness, than any idea of a pan-Indian nationhood.

This brings us to the most pertinent question regarding the authorship of the articles. Although we know for certain that women authors were writing from the 1870s, the authorship of the earlier articles on midwifery and women's health in vernacular women's magazines such as *Bamabodhini Patrika* and *Bangamahila* (run by male social reformers) is largely obscured and hence undetermined. It is quite possible that they were written mostly by Bengali male reformers including medical students, particularly, the graduates of the vernacular licentiate class of the Calcutta Medical College. Such articles in the women's magazines were also published as translated versions of some British books on midwifery or extracts from lectures delivered by British obstetricians, for instance, by Dr James Simpson.⁷ In all probability, they were not compositions by the women medical graduates who emerged as a professional group only after the establishment of the Dufferin Fund in 1885 and more coherently from 1891 onwards.⁸ In magazines such as *Bharati* and *Antahpur* which were

⁴ Of late, Samarpita Mitra has extensively studied the expansion of a literary sphere enabled by the booming print culture where a 'sub-national' and cultural identity of the Bengalis was worked out. The study has however, excluded the health magazines from the scope of the study, its focus being primarily on the formation of cultural identity and aesthetic sensibilities of the Bengalis in the nationalist period. For details see, Samarpita Mitra, 'The Literary Public Sphere'. The only scholar to have focussed to some extent on the role of health journals in diffusing modern scientific ideas on health is Pradip Kumar Bose. See, Pradip Kumar Bose ed., *Health and Society in Bengal: A Selection from Late 19th-Century Bengali Periodicals* (New Delhi: Sage, 2006).

⁵ I have deliberately excluded the medical journals such as *Bishakdarpana*, *Anubikshan* from the scope of this chapter as they contained matters of academic interest and published with the aim of expanding professional knowledge in various branches of medicine. They were read by medical professionals and very rarely by non-medical lay public.

⁶ I have deliberately kept out the medical journals such as *Bishakdarpana*, *Anubikshan* from the scope of this chapter as they dealt more with diseases and their remedies than with the socio-cultural ramifications of health problems in Bengal.

⁷ An essay on Dhatribidya (Midwifery) was translated from Dr James Simpson's lectures on the duties of a midwife during labour. Dr James Simpson rose to prominence in nineteenth century England for his discovery of chloroform in 1847. For details, see Patricia Branca, *Silent Sisterhood: Middleclass Women in the Victorian Home* (London: Croom Helm, 1978), p.84.

⁸ Geraldine Forbes, 'Education to Earn: Training Women in the Medical Professions', in *Women in Colonial*

managed exclusively by women and came into publication in the 1870s and 1890s respectively, the writers were invariably literate females from the upper and middle echelons of Bengali society.

Reconfiguring the Family: A Rational Exercise

This section will identify the major transformative strands that shaped Bengali socio-cultural milieu in the nineteenth century and contributed to the reconfiguration of a society more open towards accepting and assimilating western ideas and values. It will account for the emergence of the modern and scientific sensibilities of the Bengalis that increasingly became apparent in the second half of the nineteenth century. Scientific ideas couched in the rhetoric of reason profoundly influenced the bhadralok's approach towards predominant social questions of the time. It underscored the basis for the reconfiguration of the primary social unit of family as conveyed by the notions of domesticity and conjugality. In the process, pregnancy and child-bearing practices as crucial elements of domestic and conjugal life came to the fore as vital areas of concern. This was especially significant in view of the disconcerting reports of infant deaths attributed to negligence and irrational practices of the womenfolk, being circulated by popular magazines from the 1860s. Long before the nationalist anxieties over the increasing rate of infant and maternal mortality were articulated in press in the inter-war years of the twentieth century, a fledgling attempt to modernize existing midwifery practices was made by the liberal reformers in the nineteenth century. Such reform initiatives had interesting resonances in the nationalist discourse on childbirth in the following century.

The emergence of the bhadralok or the educated/professional middle class (*madhyabitta shreni*) is historically associated with the expansion and consolidation of the British rule in early nineteenth century Bengal.⁹ The sheer necessity of manning the lower administrative and judicial rungs of an expanding colonial bureaucratic structure brought into being a new middle-class as 'the agency of imperial economy and administration.'¹⁰ As B.B. Misra has

India: Essays on Politics, Medicine and Historiography (New Delhi: Chronicle Books, 2005).

⁹ John McGuire, *The Making of a Colonial Mind: A Quantitative Study of the Bhadraklok in Calcutta, 1857-1885* (Canberra: Australian National University, 1983); S.N. Mukherjee, 'The Bhadrakloks of Bengal' in Dipankar Gupta ed., *Social Stratification* (Delhi: Oxford University Press, 1991).

¹⁰ Gauri Viswanathan, *Masks of Conquest: Literary Study and British Rule in India* (New York: Columbia

argued, the central motive driving the British was to 'create a class comparable to their own, so that it might assist them in the administration of the country and help in the development of its internal resources necessary for the payment of the increasing imports of British manufactures.'¹¹ By J.H. Broomfield's definition, the bhadralok were 'a socially privileged and consciously superior group, economic dependent upon landed rents and professional and clerical employment; keeping its distance from the masses by its acceptance of high caste proscriptions and its command of education.'¹² It included professionals such as teachers, lawyers, journalists and doctors who wielded considerable social power. English education introduced this group to western scientific and philosophical ideas while English educational textbooks harped on the inferiority of Indian civilization and emphasized on Western qualities of 'rationality' 'manliness' physical fitness' and 'progressiveness' as against the alleged Indian propensities to be 'superstitious', 'effeminate', 'weakly' and 'decadent'.¹³

Induction of the newly emergent middle class men into the professional sphere of '*chakri*' or salaried employment was singularly enabled by the introduction of English education in Bengal by the English Education Act of 1835.¹⁴ English education and the subsequent entry into the precincts of the colonial offices regulated by strict discipline and 'clock-time' endowed the bhadralok with the consciousness of a modern self.¹⁵ At the same time, the 'routinized' nature of office work generated a sense of estrangement from the traditional mode of existence which was further complicated by subordination to colonial employers and the everyday humiliation that such conditions of employment came to signify. The consequence was an awareness of the need to retain family as the site for the preservation of traditional social order. Yet, the impact of western education was equally colossal in fashioning a modern, scientific consciousness of the colonized middle class, leading to some of the aspects

University Press, 1989), p.146.

¹¹ B.B. Misra, *The Indian Middle Classes: Their Growth in Modern Times* (London, New York, Bombay: Oxford University Press, 1961), p.10.

¹² J.H. Broomfield, *Elite Conflict in a Plural Society: Twentieth Century Bengal* (Berkeley and Los Angeles: University of California Press, 1968), p.13.

¹³ Judith Walsh, 'The Virtuous Wife and the Well-Ordered Home: The Reconceptualization of Bengali Women and their Worlds', in Rajat Kanta Ray ed., *Mind, Body and Society: Life and Mentality in Colonial Bengal*, (Calcutta: Oxford University Press, 1995), p.333.

¹⁴ Viswanathan, *Masks of Conquest*, p.146.

¹⁵ Sumit Sarkar, *Writing Social History* (New Delhi: Oxford University Press, 1997).

of traditional cultural practices being brushed aside as primitive, irrational and backward. This dichotomous pull between tradition and the forces of modernity under the colonial rule intrinsically shaped the bhadralok response to the relevant socio-cultural issues of the time.

English education introduced the bhadralok to western philosophical and scientific thoughts, like August Comte's 'Religion of Humanity', Herbert Spencer and John Stuart Mill's writings on 'utilitarianism' and Charles Darwin's 'Evolutionary Theory.' The consequent interface with Victorian bourgeois values underscored much of the middle class bhadralok's rationalist engagement with modernity, science and self-rediscovery. As Tapan Raychaudhuri has argued, reason was integral to the educational structure that evolved in response to colonial rule in the early nineteenth century, most visible in the curricula of the Hindu College (established 1817) and similar institutions that sprang up around the same time. The curricula reflected 'strong rationalist bias' and was also 'uniquely secular' for most part of the century.¹⁶

Reason became central to the intellectual pursuits of the Bengali intelligentsia, science being perceived as a potent tool of cultural expression. As Gyan Prakash points out, 'New organizations were set up to foster a scientific culture, and existing public bodies included the promotion of science in their activities. Western-educated Indians published tracts on science with or without government patronage, and religious and social reform came to be seen through science's authoritative "second sight".'¹⁷ Following the foundation of the Asiatic Society in 1784 as the nucleus for promoting the study of India's 'natural history' and science,¹⁸ a number of socio-religious reform and scientific associations such as the *Brahmo Samaj*, *Tattvabodhini Sabha* and the Society for the Acquisition of General Knowledge came into being, nearly all of them being driven by the pressing motive of evolving 'new forms of thinking and living.'¹⁹ The 'new forms of thinking and living' touched upon the most integral aspects of life embodied in health, domesticity, conjugality, motherhood, child-bearing and

¹⁶ Tapan Raychaudhuri, 'The Pursuit of Reason in Nineteenth Century Bengal', in Ray ed., *Mind Body and Society*, pp.48-52.

¹⁷ Gyan Prakash, *Another Reason: Science and Imagination of Modern India* (Princeton: Princeton University Press, 1999), p.52.

¹⁸ Deepak Kumar, 'Calcutta: The Emergence of a Science City (1784-1856)', *Indian Journal of History of Science*, Vol.29, No.1, Jan-Mar, 1994. Also see, Srabani Sen, 'The Asiatic Society and the Sciences in India, 1784-1947', in Uma Dasgupta ed., *Science and Modern India: An Institutional History, c.1784-1947* (New Delhi: Centre for Studies in Civilizations, 2011).

¹⁹ Prakash, *Another Reason*, p.52.

child-rearing. A brief analysis of the bhadralok's preoccupation with health may provide an entry point to this discussion.

The western educated middle class' preoccupation with health became increasingly evident in the 1860s and 1870s, more so in Bengal than in other parts of India. The concern for health was visibly a reaction to the colonial indictment of the Bengalis as 'effeminate.' Tanika Sarkar has traced the root of the Bengali's sense of emasculation to the economic setbacks of the 1830s and 40s. The low productivity in the 'moribund' delta region of the Ganges and inadequate food-supply that was followed by epidemics, recurrent life threatening fevers and famines, substantially contributed towards the structuring of the self-image of a 'frail' Bengali. This awareness of a fragile self lent credence to the idea of effeminacy; manhood, as Sarkar argues, was based on specific 'nature of relationship' to property. The marginalization of the Bengali entrepreneurs in the modern economic sector from the 1840s by the European agency houses and the Marwaris (a North Indian trading community) and the compulsion of the middle class to work in petty clerical positions in colonial administrative establishments generated a profound sense of emasculation which was further boosted by the Rent Acts of 1859 and 1885. The Rent Acts caused substantial erosion in the power and privileges of the zamindars over the tenants since the Permanent Settlement of 1793.²⁰ Such setbacks, needless to say, struck at the selfhood and dignity of the middle class that had although retained a connection with the land. The consequent sense of decline that came to haunt the middle class for the whole of the nineteenth century, as Mrinalini Sinha has demonstrated, was further exacerbated by certain racist and exclusivist policies of the colonial state. Thus, the colonial state refused to allow the Bengalis the right to bear arms or hold higher positions in the colonial administrative service, by repeatedly questioning their masculinity.²¹

By the 1850s and 1860s, as John Rosselli points out, the English educated middle class had internalized the British stereotype of an 'effeminate Bengali' and sought to overcome this supposed degeneracy through revival of physical culture.²² An article entitled 'The revival of

²⁰ Tanika Sarkar, 'Hindu Wife, Hindu Nation: Domesticity and Nationalism in Nineteenth-Century Bengal' in *Hindu Wife, Hindu Nation: Community, Religion, and Cultural Nationalism* (New Delhi: Permanent Black, 2001), pp.31-37.

²¹ Mrinalini Sinha, *Colonial Masculinity: The 'Manly Englishman' and the 'effeminate Bengali' in the late nineteenth century* (Manchester and New York: Manchester University Press, 1995).

²² John Rosselli, 'The Self-Image of Effeteness: Physical Education and Nationalism in Nineteenth Century Bengal', *Past and Present*, Vol No. 86, Feb.1980, pp. 121-148.

National Physical Health' admitted that 'most foreigners and some thinking Indians strongly believe that the people of our country have a frail body and a short lifespan and that is certainly not far from the truth.'²³ The solution proposed was that 'if nutritious food is to make the physique properly strong, then it is necessary to inhale enough fresh air into the lungs through physical activities and proper exercise.....if the respectable, educated and rich people of our country are prepared to undertake the amount of physical exertion that even an English woman does, one of the major impediments against improvement of their bodily health would be removed.'²⁴

The mechanisms of body became a critical area of interest in the bhadralok discourse on health, having crucial links with the institutionalization of western medicine in India, a process enabled by the foundation of the Calcutta Medical College (CMC) in 1835.²⁵ The introduction of anatomy and physiology into the new medical curriculum of the CMC signalled an academic interest in the biological functioning of the body, enabling the constitution of new forms of knowledge that rendered the body as a subject of medical/clinical scrutiny. This was in sharp contrast to the existing pattern of medical education in India that principally centred on medical knowledge being passed from the teacher (known as *Kaviraj* in the *Ayurveda* tradition) to the pupil and the latter mastering the classic medical texts written in Sanskrit and preparing medicine under the guidance of the *Kaviraj*.²⁶ Therefore, the study of anatomy when introduced as part of the medical curriculum at the Medical College had deeper implications in terms of how health was beginning to be perceived by bhadralok on a medical-scientific basis.

Up to the 1860s, the colonial officials chiefly concerned themselves with diseases that fatally affected the army and the European community. A Royal Commission to Enquire into the Sanitary State of the Army in India was appointed in 1859. The Commission however, did also make investigation into the health and diseases of the general native Indian population.²⁷

²³ *Cikitsa Sammilani* quoted in Pradip Bose, *Health and Society*, p.105.

²⁴ *Cikitsa Sammilani* quoted in Pradip Bose, *Health and Society*, p.108.

²⁵ Mel Gorman, 'Introduction of Western Science into Colonial India: Role of the CMC', *Proceedings of the American Philosophical Society*, Vol.128, No.2, Sept.1988, pp.276-298.

²⁶ Christian Hochmuth, 'Patterns of Medical Culture in Colonial Bengal, 1835-1880', *Bulletin of the History of Medicine*, Vol.80, No.1, Spring, 2006, pp.39-72.

²⁷ David Arnold, 'Medical Priorities and Practice in Nineteenth Century British India', *South Asia Research*, Vol.5, No.2, November 1985, pp.167-183; Prakash, *Another Reason*.

The health of the Indian population did not usually figure in the official colonial health policy except during the outbreaks of epidemics such as cholera, smallpox and plague that compelled state intervention from time to time. Yet from the 1860s itself, thanks to the profound sense of emasculation haunting the bhadralok and the new forms of knowledge introduced by the CMC, the Bengali middle class found itself examining the mechanisms of body and ways to secure personal health. Voicing such concerns in the 1880s, the leading health journal *Cikitsa Sammilani* lamentingly pointed towards a state of existence of the Bengalis in which, 'diseases like malaria, filaria or goitre are rampant, the germs enter the body and affect the blood and the bone marrow, which in turn delimits physical strength and virility.'²⁸

The gradual reformulation of existing health practices among the bhadralok was evident in the print from the 1860s when medical publications in Bengal proliferated. Such reformulations mostly refrained from overt association with western medical discourse and were overwhelmingly projected as the modified and simplified renditions of the indigenous Ayurveda tradition. Projit Behari Mukharji has identified such writings as a distinct genre within the huge corpus of medical writings that were published in this period.²⁹ To cite an instance, the composition of one of the earliest health manuals entitled, *Sharirik Svasthya Bidhan* (A Treatise on Physical Health) (1862) was inspired, according to its author, by the presumed dearth of medical literature in Bengali language, that would provide access to the supposedly 'rich' repertoire of Sanskrit based Ayurveda medical tradition otherwise inaccessible for the lay readers.³⁰ Hence, *Sharirik Svasthya Bidhan*, being written in lucid Bengali language propounded health principles that were designed to regulate the daily habits of people, within the framework of Ayurveda medical discourse. It emphasized a balanced and nutritious diet, breathing fresh air, drinking pure water and doing physical exercise; it also prompted a certain 'code of conduct' for women to be observed during menstruation.³¹ While the instructions had nothing overtly western about them, the concern of the author that

²⁸ 'The Revival of National Physical Health', *Cikitsa Sammilani*, April-May 1885, edited and translated in English by Bose, *Health and Society*, p.105.

²⁹ Projit Bihari Mukharji, *Nationalizing the Body: Medical Market, Print and Daktari Medicine*, (London: Anthem Press, 2011).

³⁰ Gourinath Sengupta, *Sharirik Svasthya Bidhan* (A Treatise on Physical Health) (Calcutta: 1862), Introduction.

³¹ Sengupta, *Sharirik Svasthya Bidhan*.

men and women be enlightened about certain vital aspects of their health was a manifestation of the deepening middle class interest in the mechanisms of the body; it was, as mentioned earlier, the consequence of the new paradigmatic shift caused by the introduction of anatomy as a subject at the CMC.

The importance of securing personal physical health was reiterated in various women's magazines of the time. Being usually composed by male writers the ideas contained in such writings were clearly tantamount to patriarchal injunctions, a subtle yet pervasive way to control the everyday lives of women. For instance, a series of articles entitled '*Sharirik Svasthyabidhan*' (Rules of physical health) which appeared in *Bamabodhini Patrika* in 1867, endorsed an entire range of health care principles to be observed by the women that included emphasis on cleanliness, proper ways of bathing, remedies to cure constipation, hair care and care of the face and teeth.³² The crucial feature of the series was however, the prescriptions on 'proper' mode of entertainment for women and prohibitions on indulgence in obscene gossips, signifying strong patriarchal ardour for regulating female behaviour and supervising the running of the household.³³ However, what really invigorated the print culture of the late nineteenth century was a deluge of writings on familial and reproductive health representing competing medical traditions of western allopathic medicine, homeopathy and Ayurveda that jostled together in the same space and opened up the possibilities for exchange of ideas.

In the 1870s the broader socio-political context in Bengal was provided by what has been referred to by historians as the phase of cultural 'revivalism.' It was an era marked by strong propensities to valorise history of the Hindus, their religion and spiritual tradition to the point of 'chauvinism' and 'cultural bigotry.' Amiya Sen however reminds us that the essence of cultural revivalism did not really lie in reviving Hindu tradition per se but in the tendency to attach 'disproportionate importance' to certain aspects of tradition compared to others.³⁴ It

³² '*Sharirik Svasthyabidhan*', *Bamabodhini Patrika*, Vol.3, No.52, Nov.1867, pp. 640-642. It was only a part of such series of essays published in 1867 and 1868.

³³ Jordanova has alluded to the inclination of men in eighteenth century France and England to supervise women in childbirth without getting directly involved in it. The same process could be seen to be at work in nineteenth century Bengal. Bengali bhadraloks were seen to advise women on everything from running a household to giving birth. For details see, L.J. Jordanova, 'Natural Facts: a historical perspective on science and sexuality', in Carol P. MacCormack and Marilyn Strathern, ed., *Nature, Culture and Gender* (Cambridge: Cambridge University Press, 1980).

³⁴ Amiya P. Sen, *Hindu Revivalism in Bengal, 1872-1905: Some Essays in Interpretation* (Delhi: Oxford University Press, 1993).

was the outcome of a series of blatantly discriminatory and racist policies of the colonial regime between the 1860s and the 1890s that resulted in increasing disenchantment of the colonized elites with the emancipatory and progressive capacities of colonial governance.³⁵

The revivalist spirit permeated the vernacular literature including medical writings and had interesting resonances in the reformulation of gender relations in the period. In the 1880s the Bengali bhadralok's preoccupation with health acquired new dimensions. Of all the reasons cited for the supposed frailty of the Bengalis, child-marriage and premature consummation leading to early pregnancies and debilitating diseases amongst mothers and children were prominent in the reflective debates of the time. It is interesting to note how a certain medical work on midwifery appropriated the dominant revivalist mood of the time in interpreting the evils of child-marriage from both social and medical perspectives. Haranath Ray's '*Dhatri-sikkha Samgraha*' (Midwife's Vade-Mecum) published in 1887 is the work in question. In an overtly Hindu revivalist tone, Ray traced the origin of the 'decadent', 'irrational' institution of child marriage in the 'tyrannical' phase of Muslim rule, thereby denying its origin in the Vedic age when this practice was claimed to have been entirely absent. He asserted that the lecherous disposition of the Muslim ruling elites compelled the Hindus to marry off their daughters at a young age in order to preserve their chastity. Ray condemned child marriage in both social and medical terms: in social terms, by tying it up with other ills such as child widowhood and lack of emotional attachment between the child bride and groom; in medical terms by illuminating the debilitating impact of early/pre-mature maternity on the future of the race.³⁶ He argued that early menarche in Hindu women followed by early consummation (*garbhadhan*) and pregnancy resulted in the gradual weakening of the Hindu race. If the law of 'Evolution' was to be believed, Hindu race would, in no time, be wiped off the face of the earth.³⁷

³⁵ Tanika Sarkar, 'Conjuality and Hindu Nationalism: Resisting Colonial Reason and the Death of a Child-Wife', in *Hindu Wife, Hindu Nation*, pp.196-197. The discriminatory policies included the repressive vernacular press acts of the 1870s issued by Viceroy Lytton, and the staunch opposition of the British to the Ilbert Bill introduced by Viceroy Ripon in 1883 that allowed British offenders to be tried by Indian Judges and Magistrates. The protests launched by the British in India and Britain brought to the fore the racist nature of the colonial rule in India.

³⁶ Haranath Ray, *Dhatri-Sikkha Samgraha* (Midwife's Vade-Mecum) (Calcutta: Bengal Law Report Press, 1887), pp.349-359.

³⁷ In a slightly different context, Mark Singleton has remarkably showed how Indian yogic practices at the turn of the century incorporated and 'indigenized' certain aspects of the late nineteenth century social ideologies of social Darwinism and eugenics in an attempt to 'recast modern science as ancient truth.' Mark Singleton, 'Yoga, Eugenics and Spiritual Darwinism in the Early Twentieth Century', *International Journal of Hindu Studies*,

Haranath Ray's view represented one end of the spectrum. Here, revivalist sentiment was carefully evoked to condemn child marriage as a practice encouraged by the fear of Muslims. On the other end of the spectrum were those who glorified child marriage as an intrinsic aspect of Hindu tradition and consequently, they opposed any attempt at modifying it. The Age of Consent controversy of the 1890s was a classic example. Tanika Sarkar has argued how the reigning conservatism of the revivalist era caused the *bhadralok* to redirect focus from the public sphere as the arena for the 'test of manhood' to the family as 'an enterprise to be administered, an army to be led, a state to be governed.'³⁸ Consequently, conjugality in the sense of being the 'loving, willed surrender' of the Hindu wife to the husband became the key principle for the administration of family and assertion of 'native' masculinity. It was perhaps the only viable way to compensate for the subordination in the world outside. Mrinalini Sinha has reinforced Sarkar's argument by demonstrating how the body of Bengali females became a site for the assertion of 'native masculinity' by the revivalist nationalists whose complicity in the politics of colonial masculinity purged nationalist politics of its emancipatory possibilities. It also accounted for the 'curious' silence of the women's magazines on the Age of Consent controversy throughout the period of agitation.³⁹

The Age of Consent Bill that was introduced into the Legislative Assembly by Sir Andrew Scoble in January 1891 raised the age of consent for consummation for Indian girls from ten to twelve. While the Government was initially paranoid about introducing any new legislation, it eventually yielded to the reformist pressure. The Bill generated a protest of unprecedented enormity in Bengal compared to the rest of India.⁴⁰ The revivalists, who constituted the chief opponents of the Bill, alleged that the raising of the age of sexual consummation from ten to twelve violated the *garbhadhan* (consummation) ceremony which constituted one of the major ten rituals of the Hindus.⁴¹ It was tantamount to tampering with Shastric injunctions and the sacrosanct religious practices of the Hindus. In the face of the massive conservative backlash, the voices of the doctors and liberal reformers arguing in

Vol.11, No.2, August 2007, p.138.

³⁸ Sarkar, 'Conjugality and Hindu Nationalism', p.197.

³⁹ Sinha, *Colonial Masculinity*, Chapter Four.

⁴⁰ Charles Heimsath, 'The Origin and Enactment of the Indian Age of Consent Bill, 1891', *The Journal of Asian Studies*, Vol.21, No.4, August 1962, pp.491-504.

⁴¹ Sen, *Hindu Revivalism in Bengal*, p.379.

favour of the Bill were enfeebled and eventually drowned. Yet in hindsight, the voices of the opponents of the Bill proved equally ephemeral. As Amiya Sen has aptly argued, the Age of Consent issue was more of a 'symbolic' one 'on the basis of which political strength or preparedness could be reasonably tested' as people quickly moved on to 'newer channels of self-expression.'⁴² Child-marriage continued to engage the attention of medical men and liberal social reformers in the 1890s and more powerfully from the early twentieth century.⁴³ It elicited critical reactions from the bhadramahila at the turn of the century and featured prominently in the Indian feminist discourse in the 1920s and 30s. The roots of Bengali women's awareness about health and other social factors conditioning their lives can however, be traced to the female education movement that emerged as part of the social reform movement in nineteenth century Bengal.

Educating the Bhadramahila in Health Science

The complex process of the reconfiguration of bhadralok identity in nineteenth century Bengal placed the question of the 'degraded' status of women at the core of its reformist/modernizing self-improvement agenda. The colonial indictment of the debased conditions of Hindu women as an unmistakable sign of the inferiority of Hindu civilization struck at the crux of the selfhood of the western educated intellectuals.⁴⁴ It triggered collaborative efforts between the social reformers and the colonial state in putting end to certain decadent social norms responsible for the low status of women. Notable reforms included the campaign against Sati and its subsequent abolition through state legislation (1829) and the Widow Remarriage Act of 1856. The more enduring reformist initiative however, lay in promoting female education that underscored a sustained basis for the modernization of women, albeit within the constrictive framework of Hindu patriarchal notions of nationhood. Such notions, as Partha Chatterjee has argued, symbolically associated women with the 'inner' 'spiritual' realm of home in which dwelt the true essence of Hindu

⁴² Sen, *Hindu Revivalism in Bengal*, p.392.

⁴³ See for instance, 'The Age of Consent Bill' *Dainik O Samacara Chandrika*, 25th January 1891, R.N.P (Reports on Native Newspapers); Boyle Chunder Sen, 'The Calcutta Medical Society: The Nubile Age of Females in India', *Indian Medical Gazette*, Vol.25, Oct.1890, pp.306-312.

⁴⁴ For instance, James Mill wrote, 'The condition of the women is one of the most remarkable circumstances in the manners of nations. Among rude people, the women are generally degraded; among civilized people they are exalted.' James Mill, *The History of British India*, Vol.1, 4th Edition (London: James Madden & Co, 1840), pp.44-45.

nation. Thus, woman was to be educated and elevated and yet placed firmly in the traditional structure of family and home. This, in short, formed the basis of the new woman or bhadramahila. Judith Walsh has further argued that the bhadralok's exposure to English education and modern work ambience necessitated a reformulation of the role of women in a bid to ensure greater compatibility between the home (*griha*) and the world (*bahir*). The re-imagination of woman as an amalgamation of a romantic partner and 'family oriented' daughter-in-law and also, a dextrous housewife was in reality a foreign idea. The idea, according to Walsh, was stripped of its foreignness and linked to the traditional world of the Bengalis in reconstituting a new inner sphere of home.⁴⁵

While female education was unequivocally acknowledged as the most effective way to elevate women from their debased state of being, the nature and content of education became a site of heated contestation. The long-standing deliberations on the content of the curriculum for female education from the 1840s onwards reflected the deep-seated concerns of both the bhadralok and the colonial officials to ensure the enhancement and refinement of 'feminine' sensibilities of women. In a lecture delivered at the Bethune Society in 1863, Kumar Harendra Krishna, the *Maharajah* of Hathwah,⁴⁶ clearly spelt out the objectives of female education in the following words,

Our need is to devise such a system of education for the Hindu female as will make her an agreeable companion, a good mother, an intellectual and loving wife and an excellent housewife. We want her to be well grounded in the moral virtues recognized by the civilization of which we are the co-sharers, and to possess those superior mental accomplishments which enable the wife to serve as a solace to the husband in his brightest and darkest moments, the mother to undertake or at least superintend the early instruction of her child, and the lady of the house to provide those sweet social comforts idealized by the talismanic word—home.⁴⁷

⁴⁵ Judith Walsh, 'The Virtuous Wife.' Meredith Borthwick has analysed the reconstitution of domesticity, conjugality and motherhood in colonial Bengal between 1849 and 1905. For details see Meredith Borthwick, *The Changing Role of Women in Bengal, 1849-1905* (Princeton: Princeton University Press, 1984), Chapters four, five and six.

⁴⁶ Kumar Harendra Krishna was the Maharaj(King)of Hathwah and one who received the title of 'Bahadur' for his loyalty to the Government. He also served as the Vice-President of the Asiatic Society in 1868.

⁴⁷ Kumar Harendra Krishna, *A Lecture on Female Education in Bengal: Delivered at the Bethune Society* (Calcutta: Bengalee Press, 1863).

This was to be attained through training women in subjects like needlework, embroidery with a smattering of grammar, geography and mathematics.⁴⁸ Despite pure science and mathematics being marginalized in the curriculum, the apparently exalted position accorded to women as wives and mothers led to a minimum knowledge of health science being endorsed as crucial for the rational management of domesticity and motherhood. In the process, the roles of the new woman or bhadramahila were more vividly spelt out.

The *Bamabodhini Patrika* which was started in 1863 by the Brahmo leaders for educating the Bengali middle class women played a pivotal role in crystallising the image of bhadramahila. The overwhelming challenge faced by these leaders was 'how to be both in line with Western-oriented modernization in which women were *to know of* the outside world and in line with indigenous tradition in which they were *not to be* a part of it.(emphasis original)'⁴⁹ *Bamabodhini* addressed the dilemma through instituting '*antahpur siksa*' or home tutoring. As the 'main purveyor of antahpur schooling', *Bamabodhini* began to publish syllabus for home tutoring in the 1860s. Amongst the subjects mentioned in the syllabus such as Bengali literature, grammar, elementary knowledge of geography, arithmetic and science, preservation of health (*svasthya raksha*) also featured regularly.⁵⁰ It also published educative and prescriptive essays on domesticity, child-bearing and child-rearing under the titles of '*Ramanir kartabya*' (duties of a woman), '*Dhatribidya*' (midwifery) and '*Sisupalan*' (infant rearing) in the second half of the nineteenth century.

Reordering home was central to the reconstitution of domesticity. In stressing upon cleanliness, hygiene and order that clearly echoed Victorian ideals of domesticity, the new middle class discourse sought to discard older traditions of household management that allegedly trivialized the importance of 'order' and 'hygiene'. To offer an example, in a series of articles entitled, *Ramanir Kartabya*, the author outlined the role of a bhadramahila in

⁴⁸ Borthwick, *The Changing Role of Women*, chapter three; Malavika Karlekar 'Kadambini and the Bhadrakalok: Early debates over women's education in Bengal', *Economic and Political Weekly*, Vol.21, No.19 April, 1986, pp.25-31.

⁴⁹ Krishna Sen, 'Lessons in Self-Fashioning: "Bamabodhini Patrika" and the Education of Women in Colonial Bengal', *Victorian Periodicals Review*, Vol.37, No.2, The Nineteenth Century Press in India, Summer 2004, p.177.

⁵⁰ Some of the essays on women's education on health, literature, science, geography, etc., which were published in *Bamabodhini Patrika* were later compiled in a form of book named as '*Narisiksa*' (Female education) and published under the auspices of the *Bamabodhini Sabha*. The book was praised in press as a remarkable contribution to the advancement of female education. See, Bharati Ray, *Shekaler Nari Siksha: Bamabodhini Patrika (1270-1399)* (Calcutta: Women's Studies Research Centre, 1998), pp.71-75.

reordering her home under three major headings, *Bas Bhaban* (Drawing room) *Shajya Bhaban* (Bedroom) and *Bhandar Bhaban* (Kitchen). The bhadramahila was advised to keep the food and other edible products in labelled containers for greater clarity and order, to keep the bedroom airy, clean, properly dusted and well furnished and to put the pillows, bed cover and bed sheets under sun and also to keep out mosquitoes.⁵¹

By the same token, health science was perceived by reformers as a crucial element of female education, healing and nursing being considered as 'natural' feminine attributes.⁵² As stated before, in the fervent debate on the scope of female education in mid nineteenth century Bengal, there was a general disapproval of girls being instructed in mathematics and science.⁵³ Yet, knowledge of health science and remedies for minor diseases was deemed essential for bhadramahila in her capacity as a *grihini* or *grihakatri* (females in charge of household management.) A writer's lamentations in *Bamabodhini* on the ignorance of the contemporary women in matters of health provide a typical example. He stated ruefully:

Not very long ago, the womenfolk of our country knew medical cures for a variety of ailments. Even today, women living in the mufassils or the older women of the city are seen to treat the minor ailments of girls and boys; it used to be an educational job like any other household chore. If any member of the household fell ill, instead of calling the doctor in the first instance, the mistress of the household would try to alleviate the pain by applying her tried and tested medicines and even succeeded in eradicating it in many cases. But in the present times, girls are acquiring education in the schools but are not learning anything on this subject and nobody is paying heed to this.⁵⁴

Many of such writings in the 1870s and 1880s coalesced around the image of the bhadramahila as the repository of 'traditional'/ indigenous medical knowledge reflecting the dominant revivalist mood of the times. The reassertion of the value of traditional medicines

⁵¹ 'Ramanir Kartabya,' *Bamabodhini Patrika*, February 1887, No.265, pp.302-306.

⁵² It falls in line with L.J. Jordanova's compelling argument about how the identification of women with 'nature' and men with 'culture' in eighteenth century England and France, was being garbed in a scientific and medical language and hence, served to justify and naturalize the control of men as forces of modernity, enlightenment and progress over women as irrational, superstitious and traditional. Jordanova, 'Natural Facts.'

⁵³ Karlekar, 'Kadambini and the Bhadrakal'.

⁵⁴ 'Ramanir Kartabya' (Duties of a Woman), *Bamabodhini Patrika*, Vol.3, No.262, December 1886, pp.230-31. Similar views were expressed in another prominent but women run magazine entitled *Antahpur* at the turn of the century. See for instance, 'Grihaswasthye Ramanir Drishti' (Attention of Women towards household chores), *Antahpur*, Vol.VII, No.IX, January 1905, pp.210-13.

presumed the unsuitability of state sponsored western allopathic medicines in addressing and remedying indigenous health problems. The only interesting exception was homeopathy which despite being of German in origin readily gained acceptance in the Bengali popular psyche. As scholars have pointed out, the proliferation of homeopathic tracts on myriad aspects of health hinged on the promise for inexpensive self-cure. The middle class penchant for homeopathic treatment as opposed to allopathy which was identified as the ‘state medicine’ or scornfully referred to as ‘English medicine’ sat well with the prevailing cultural revivalist temperament of the time. Despite operating outside the orbit of state legislation, homeopathy was popularized largely through bhadralok elite endeavours and private enterprises and in the process, was thoroughly indigenized.⁵⁵ For instance, the author of an essay entitled *Garhasthya Cikitsa Pranali* (Methods of home treatment), published in *Bamabodhini Patrika* in 1871 asserted that:

Those women who are acquiring education in a slightly improved manner can study the translated versions of the Homeopathy medical books under the supervision of a competent and learned person. I can state with some courage that a little knowledge of homeopathy medicine can prove beneficial to them.⁵⁶

Notwithstanding such negotiations with indigenous medical ideas, certain epistemic aspects of allopathic medicine were internalized in formulating a modern and scientific approach to vital areas associated with health and were disseminated to the women as well.

One such area was the knowledge of human anatomy. From the early 1870s rudimentary knowledge of the functioning of the human body was being diffused through the pages of women's journals. While articles entitled ‘*Sharirik kriya*’ (Functions of the body) featuring regularly in *Bamabodhini Patrika* took the lead, lesser known magazines such as *Bangamahila* (women of Bengal) also did not lag behind in enlightening the female readers on the anatomical and biological details of the human body. A series of articles entitled ‘*Svasthya raksha*’ (Preserving the health) which appeared in 1875 provided detailed anatomical and physiological descriptions of human body such as the functions of breathing (respiration), blood circulation, digestion, interspersed with diagrams of the intestine, lungs

⁵⁵ See David Arnold and Sumit Sarkar, ‘In search of rational remedies: Homeopathy in Nineteenth century Bengal’ in Waltraud Ernst ed., *Plural Medicine: Tradition and Modernity, 1800-2000* (London and New York: Rutledge, 2000) pp.40-57. Also see, Das, ‘Debating Scientific Medicine’.

⁵⁶ ‘*Garhasthya Cikitsa Pranali* (Methods of Home Treatment)’, *Bamabodhini Patrika*, Vol.8, No.100, December 1871, p.242.

and the heart, explaining the position of the valves and the arteries. It contained elaborate descriptions of the functioning of the human brain including the functions of the five senses.⁵⁷ Such instructions on the anatomy and physiology of human body were being derived from the clinical/scientific paradigms of western medical science.

The drive to educate women in health science was, therefore, suffused with complex and contradictory meanings. On one hand, it allowed a re-imagining of woman as the storehouse of indigenous medical knowledge in consonance with her newly defined role as the preserver of the sanctified domain of household, uncontaminated by colonialism. That would imply retention of the older forms of knowledge at the cost of marginalizing the new paradigm introduced by state sponsored western medical science. On the other hand, the attempt at educating women in human anatomy and assigning them the task of modernizing birthing practices at home (as the next section will demonstrate) would signify privileging the newer system of knowledge at the expense of the older ones. It indicated the growing faith of a section of the middle class in the superiority of western medical knowledge over existing medical traditions. The break between the older and newer forms of knowledge was, however, not that sharp and was mostly based on reconciliation between the two. What was perhaps more central to the constitution and dissemination of knowledge was the rhetoric of science and the way it influenced the interpretation of existing forms of knowledge.

The Physiology and Anatomy of Birth

In the emerging discourse on the centrality of 'svasthya raksha' (preservation of health) in the regeneration of the Bengalis, the female controlled domain of midwifery gradually surfaced as one of the areas of concern in the second half of the nineteenth century. Concern for the loss of infant life due to 'neonatal tetanus' (locally referred to in Bengal and in Bengali magazines as *pechoyepawa*) brought the allegedly barbaric practices of the dhais and ignorant womenfolk of the Bengali household under scrutiny. The composition of one of the earliest treatises on infant rearing in 1857 was prompted by the alleged ignorance of the Bengali women of the principles of child-rearing resulting in unnecessary loss of infant life.⁵⁸ It was

⁵⁷ 'Svasthya Raksha' *Bangamahila*, Vol.1, No.5, 1875. Similar essays were published in other contemporary journals. For instance, see 'Svasthyaraksha o Shorir Palan (Preservation and care of Health)', *Paricarika*, Vol.4, No.2, July 1882, pp.24-27.

⁵⁸ Shib Chunder Bose, *Sisupalan*, Part I (Serampore: Mission Press, 1857), Introduction.

ruefully pointed out in *Bamabodhini* that despite the birth of a child being extremely desired in a Bengali household -- with prospective parents engaging in intense prayers, meditation and ritual penance -- the irrational practices and the unhygienic surroundings of birth led to an unnecessary waste of infant life.⁵⁹

Public anxieties over infant mortality were further accentuated by official reports, especially the census reports from 1881 onwards which revealed high infant and maternal mortality rates.⁶⁰ The census of 1881 observed in an alarmist tone that, 'out of every 1000 infants born in Calcutta, 488 die before they reach the age of 12 months...it is not incredible when the circumstances are remembered in India, and especially in a crowded town like Calcutta, surround the infant during its first few days of life.'⁶¹ Competing explanations of the causes, symptoms and treatment of '*pechoyepawa*' (neonatal tetanus) according to the prevalent allopathy, homeopathy and Ayurveda traditions were published in *Cikitsa Sammilani* from 1886 onwards.⁶² Such publications reached a wider reading community beyond the pale of medical profession.⁶³ Reforming midwifery was also perceived as an important step towards creating an educated mother as a 'crucial link in the process of modernization'.⁶⁴ Thus, while the *bhadralok* imagination of their women as the repositories of indigenous medicines

⁵⁹ See '*Dhatribidya:Sutikagar* (The art of Midwifery: The Site of Birth)' *Bamabodhini Patrika*, Vol.3, No.52, November, 1867, p.636. Concerns for child mortality continued to be expressed as a sign of unscientific ways of conducting birth in Bengali households. See for example, '*Svasthya*', *Bharati*, Vol.1, No.5, 1877, pp.180-183; Nanibala Dasi, '*Sutikagar e prasutir Cikitsa* (Care of pregnant woman at the site of birth)' *Antahpur*, Vol.6, No.5, August 1903.

⁶⁰ Hemantakumari Chaudhury, '*Sutikagriha*' (The site of birth), *Antahpur*, Vol.9, 1902, p.133.

⁶¹ J.A. Bourdillon, *Report of the Census of Bengal, 1881*, vol.1 (Calcutta:Bengal Secretariat Press, 1883),p.68. Earlier one official report of 1873 concluded that mortality amongst 'infants and young children' was higher in Bengal than in England and any lower figure of infant mortality that might have been published in the previous returns was solely due to 'deficient registration'. See *Ordinary General Mortality in the Districts in Bengal, including the Mortality in Selected Areas*, Part I, 1873, p.7.

⁶² A series on the symptoms and treatment of neonatal tetanus was published in *Cikitsa Sammilani* in 1886 according to allopathy, homeopathy and Ayurveda. See, Jagabandhu Basu, '*Allopathy: Anture Chheler Pechoyepawa Rog* (Neonatal Tetanus of the Infant)', *Cikitsa Sammilani*, Vol.2, 1886, pp. 180-182, 216-218; Annadacharan Khastagir, '*Homeopathy: Nabaprasuto Sisur Dhanushtankar Rog* (Neonatal Tetanus of the New-Born Infant)', *Cikitsa Sammilani*, Vol.2, 1886, pp.218-220; Abinashchandra Kaviratna '*Baidyamate Anturchheler Rog*' (Neonatal Tetanus of Infant according to Ayurveda), pp.183-185 & 220-224.

⁶³ The subscription list of *Cikitsa Sammilani* shows a large number of non-medical people as regularly subscribing and reading the journal. They included deputy magistrates in the districts, zamindars, 'head clerks', lawyers of High Court Calcutta, and 'headpundits' who were possibly teachers. See for instance, '*Mulyaprapti* (Subscription List), *Cikitsa-Sammilani*, Vol.3, 1887 and '*Mulyaprapti*', *Cikitsa-Sammilani*, Vol.4, 1884.

⁶⁴ Borthwick, *Changing Role of Women*, p. 184.

signified the need to preserve what was pure and traditional, the presumed ignorance of the womenfolk about their own health and that of their children, also at the same time, paved the way for the absorption of western medical ideas into existing practices pertaining to child-bearing and infant health.

The origins of the Bengali middle-class perception of existing midwifery practices being problematic could also be partly traced to the concerns voiced by the women Christian missionaries charged with the responsibility of educating the women of the Antahpur /zenana.⁶⁵ Also, following the opening of a Bengali class at the CMC in 1864, there was an increased awareness of the medical significance of midwifery amongst the male students, most of whom belonged principally to the bhadralok class.⁶⁶ A shining instance was the demand raised by these students in 1866 for theoretical and practical training in midwifery, resulting in the appointment in 1868 of a 'Native Sub-Assistant Surgeon' as the teacher of midwifery, on a permanent basis.⁶⁷ While it is doubtful that the newly trained doctors immediately penetrated the zenana with their knowledge, the incident no doubt, marks the eagerness of the bhadralok to appropriate the new paradigms of knowledge on midwifery offered by western medical science. However, in the absence of direct access into the female spheres, the bhadralok invented an alternative strategy of transferring the new knowledge to the bhadramahila through the prevalent form of 'home tutoring' introduced by *Bamabodhini*.

The series of articles entitled '*Dhatribidya*' (art of midwifery) and '*Sisupalan*' (child rearing) which began to appear in *Bamabodhini Patrika* from 1866 and continued till the early 1870s, embodied the earliest initiatives of the reformist section of the bhadralok to introduce western medical ideas into the secluded quarters of zenana or antahpur, at least two decades before the colonial state took an interest in it through the foundation of the Dufferin Fund in 1885.

⁶⁵ Margaret Ida Balfour and Ruth Young, *The Work of Medical Women in India* (Oxford: Oxford University Press, 1929), p.81. David Arnold has acknowledged the overall role of missionaries in penetrating the 'uncolonized' space of zenana. See Arnold, *Colonizing the Body*, p.256.

⁶⁶ In as early as 1848, the annual report of the newly opened midwifery ward of the CMC declared with pride that six of their college graduates had successfully settled in and around Calcutta and were managing labour cases of women although that mostly excluded direct manual interference with their body parts. It also stated that the practice of confining women to sutikaghar/anturghar was 'entirely abandoned by all the respectable natives in Calcutta.' Meredith Borthwick in her extensive study of the bhadramahila has considered this statement to be 'far too sweeping expression of optimism.' See, Borthwick, *Changing Role of Women*, pp. 156-157.

⁶⁷ West Bengal State Archives (WBSA), Proceedings of the Lieutenant Governor of Bengal, General Department, Medical Branch, Progs No.1-7, August 1867. However, the CMC had begun to teach midwifery from 1841 along with surgery, botany and medical jurisprudence. See, CMC, Centenary Volume, (Calcutta: Statesman Press, 1935). This incident has been discussed in greater detail in chapter two.

Being one of the longest running women's magazines in Bengal from 1863 to 1922, *Bamabodhini* enjoyed a wide and popular readership.⁶⁸ 'Dhatribidya' and 'Sisupalan' were written with the aim of introducing middle class women to the physiology and anatomy of their own body and to a scientific understanding of the functioning of the reproductive system, so that false notions associated with parturition could be dispelled and a more rational understanding of pregnancy and childbirth based on the new information be introduced.

For instance, one of the earliest articles in the *Dhatribidya* series published in *Bamabodhini Patrika* in 1867 outlined the imperatives for starting the series in the following words,

The prevalent superstition and ignorance among the pregnant women have resulted in a number of mishaps. Therefore, they should be made aware of their duties during pregnancy. To attain a sound knowledge of midwifery it is essential to learn about the functions of the abdomen, pelvis and the change in the position of the foetus in the uterus. However, it is illogical to write down such details in *Bamabodhini*. Those aspects of midwifery which the women readers will not feel embarrassed to read will be discussed here.⁶⁹

The author therefore, set the parameters of the knowledge to be delivered to the women readers. However, this series of articles later straddled an extensive range of subjects relating to pregnancy. They spelt out biological details of the process of pregnancy, advised care of pregnant women (earliest hints on ante-natal care), explained management of labour and care of the mother and the infant after delivery.⁷⁰ All of these had interesting resonances in the constitution of a medical discourse on childbirth following the incorporation of midwifery in the medical curriculum of the CMC in 1841. The essays were also testimony to the fact that the knowledge of the anatomy of female body was a male preserve in nineteenth century Bengal as in many other parts of the world, female body being an object of male scientific scrutiny. The knowledge of female anatomy was, however, to be disseminated to the women

⁶⁸ Krishna Sen states that every copy of the magazine was sold out till similar magazines began to appear in the last quarter of the nineteenth century. Sen, 'Lessons in Self-Fashioning', p.177.

⁶⁹ 'Dhatribidya', *Bamabodhini Patrika*, Vol.3, No.50, September 1867, p.597.

⁷⁰ 'Dhatribidya: Garbhabasthyay Prasutir Susrusa (Care of Pregnant Women)', *Bamabodhini Patrika*, Vol.3, No.51, Nov.1867, pp.616-619.

to the extent that would enlighten her about certain scientific aspects of pregnancy and teach her measures to safeguard the life of the infant in the interest of the family and nation.

The earlier essays of the *Dhatribidya* series began with critiquing the site of birth. For instance, one of the earliest in the series blamed the prevalent 'superstition' and 'ignorance' for preventing childbirth from taking place within the main precincts of the household. This allegedly led to the construction of *sutikagriha* (place of birth) in that corner of the house which was the filthiest and the most ill-ventilated causing irreparable damage to the life of the infant. Thus, it was advised that the room which was 'spacious, airy with windows open on the south' be selected as the ideal site of birth.⁷¹ The recurrence of the denunciation of *sutikagriha* in both *bhadralok* and colonial writings led to initiatives being taken later by the Dufferin Fund to implement hospitalization of birth by opening a country-wide network of female run hospitals, a trend that falteringly gained acceptance in the next century. Further, the image of *sutikagriha* as the abode of sickness and post-pregnancy complications acquired renewed centrality in the public debates on maternal and infant mortality in Bengal in the inter-war years.

In the later essays of the *Dhatribidya* series, the spotlight shifted from the socio-cultural settings of birth to the physiological details of labour. Women were taught to recognise three types of labour: normal labour, delayed labour and abnormal labour. Each of the types was defined briefly and the possibilities of danger to both the mother and the child in case of abnormal labour were spelt out. The duties of the *dhais* in each of the three stages were also vividly outlined. However, the idea of childbirth as essentially a natural process remained dominant and continued to be reiterated in such discussions. Thus, the author of one such essay concluded: 'The miraculous power of God is reflected in the way the uterus reverts back to its position immediately after the birth of the child. Labour pain cannot be compared with any other pain because it is natural and goes away naturally and quickly. No other pain disappears so quickly on its own.'⁷²

At the same time, the possibilities of 'abnormality' disrupting the natural process of birth also came to be recognised. The simultaneous focus on the physiological nature of birth and the

⁷¹ '*Dhatribidya: Sutikagar* (The Site of Birth)', *Bamabodhini Patrika*, Vol.3, No.52, November-December 1867, pp.636-637.

⁷² '*Dhatribidya: Swabhabik Prasab* (Normal Labour)', *Bamabodhini Patrika*, Vol.3, No.53, December, 1867, p.656.

abnormal aspects of it represented the first signs of problematization and to some extent pathologization of midwifery. In an essay entitled '*Dhatrir kartabya*' (duties of a dhai) under the Dhatribidya series, the author began by acknowledging 'the way the foetus grows and gains strength within the uterus under divine dispensation, the dhai is not seen to have a weighty role to perform in the entire process. But in whatever little is left for the dhai to do, if she is inexperienced, dangerous consequences may follow which may cause death to both mother and the child.'⁷³ Despite admonishing the dhai for her unclean and unscientific ways, he eventually bestowed her with the crucial responsibility of examining the parturient women. The dhai had to examine: firstly, whether the head of the foetus was likely to appear first or any other part of the foetal body, secondly, the position of the foetus in the uterus, thirdly, the proportion between the pelvis of the mother and the head of the foetus, fourthly, the position of the foetal heart and lastly, the shape and weight of the abdomen.⁷⁴ If the mother shied away from giving in to the examination, it was the duty of the dhai to convince her of the utility of such examinations. Here, it is relevant to mention that the concern with 'the proportion between the pelvis of the mother and the head of the foetus' underscored the faint beginnings of a medical approach that emphasised the identification of any possibilities of disproportion as the means to distinguish normal/physiological birth from abnormal/pathological ones.⁷⁵ It paved the way for pelvimetry (measuring the size of the pelvis) to be incorporated as a vital component of the professionalized obstetrics during mid-twentieth century. It is therefore, significant that such ideas found expression in Bengali popular print in as early as the 1860s.

Notwithstanding the frequent denunciation of the dhais in reformist discourse they were deemed as indispensable in Indian birthing practices. In the failure to dislodge them altogether, the only viable option was to instruct them to adopt a regulated and informed approach in handling the three stages of labour. Frequent examinations by them of the pregnant woman and the forcible extraction of the foetal head were warned against and labelled as barbaric. The simultaneous denigration and inclusion of the dhais in the birthing

⁷³ '*Dhatribidya: Dhatrir Kartabya* (Duties of a Midwife)', *Bamabodhini Patrika*, Vol.3, No.54, January 1868, p.676.

⁷⁴ '*Dhatribidya: Dhatrir Kartabya*'.

⁷⁵ Hendrik Van Deventer, a renowned Dutch obstetrician mentioned the disproportion between the size of the pelvis and the head of the foetus in his eighteenth century work on midwifery. For details see, Jean Donnison, *Midwives and Medical Men: A History of the Struggle for the control of childbirth* (London: Historical Publications Ltd, 1993).

practices in the mid-nineteenth century was part of a complex attempt of the colonized elite to reconcile tradition with newly received scientific ideas from the west. However, much of what was written for the enlightenment of the dhais was often aimed at familiarizing the middle-class women with the medical aspects of birth and also making them aware of the unhygienic and unscientific nature of the work performed by the dhais.⁷⁶

Bamabodhini Patrika gradually transcended the limits it had set for itself in educating women on the scientific aspects of midwifery. In 1872, an essay entitled '*Matrigarbha o garbhasisu*' ('Mother's Womb and the Foetus Within') contained colourful diagrammatic representation of the evolutionary stages of foetal growth inside the mother's womb.⁷⁷ Other contemporary journals like *Bharati* too devoted a few pages towards explaining the scientific ways of managing midwifery in Bengal.⁷⁸ By the 1880s, pamphlets written in lucid Bengali language on the science of reproduction by Bengali medical men were proliferating which were addressed to the dhais and the Bengali middle-class readers.⁷⁹ For instance, Jadunath Mukherji's '*Dhatrisiksa*' (Training the Dhais) published in 1867 aimed to educate both the prospective mother and the dhai in the science of midwifery.⁸⁰ Dr Annada Charan Khastagir's '*A Treatise on the Science and Practice of Midwifery with Diseases of Children and Women*', which was written in 1868, devoted for the first time a chapter on the diagrammatic illustrations of surgical instruments like forceps, fillets and vectis and described their history and functions in childbirth.⁸¹ Slightly later in the 1880s, Khirodaprosad Chattopadhyay's '*Dhatribidya*', a translated version of Dr Playfair's popular book on midwifery, also delineated the surgical aspects of birth.⁸² It is not hard to guess that such medical texts rarely found

⁷⁶ '*Svasthya*', *Bharati*.

⁷⁷ '*Matrigarbha o Garbhasisu* (Mother's Womb and the Foetus Within), *Bamabodhini Patrika*, Vol.8, No.109, September 1872.

⁷⁸ '*Svasthya*', *Bharati*.

⁷⁹ How many dhais availed of those books is not known. But it was assumed that the lucidity of the Bengali language could help the dhais in grasping the information contained in such pamphlets.

⁸⁰ Jadunath Mukhopadhyaya, *Dhatrisiksha ebong prasutisiksha arthat kathopakathanchhale dhai ebong Prasutidiger proti upadesh* (Educating the Midwife and the Pregnant woman written in the form of dialogue) (Chinsurah: 1867).

⁸¹ Annada Charan Khastagir, *Manabjanmatattva, Dhatribidya, NabaprasutSisu o Strijatir Byadhisangraha* (A Treatise on the Science and Practice of Midwifery with Diseases of Children and Women), 2nd ed (Calcutta: 1878).

⁸² Khirodaprosad Chattopadhyay, *Dhatribidya* (Midwifery) (Bhowanipur: Oriental Press, 1886).

readership amongst the womenfolk of the zenana.⁸³ Yet as chapter two will argue, such publications substantially contributed towards recasting midwifery along scientific lines.

Midwifery was inextricably bound up with infant rearing (*sisu palan*) which encompassed a wide variety of activities from infant feeding and infant diseases to more profound questions of the moral upbringing of the children. Infant rearing therefore, required an equally enlightened and refined approach. As early as in 1857, Shib Chunder Deb wrote a treatise entitled *Sisu palan* on the physiological treatment of infancy which was acknowledged to have been based on Dr Andrew Combe's *Treatise on the Physiological and Moral Management of Infancy*.⁸⁴ The second part of the book which came out in 1868 dealt at length with the moral upbringing of children. *Bamabodhini Patrika* published a series of articles entitled '*Sisu palan*' in the form of a dialogue between husband and wife in order to ensure greater intelligibility amongst the women readers. Most of such instructive pamphlets which continued to inundate the printing world in the second half of the nineteenth century had strong reverberations of Victorian ideals of motherhood and child rearing. Meredith Borthwick in her exhaustive study of the bhadramahila from 1849 to 1905 has argued that the western educated intelligentsia was profoundly influenced by Victorian model of child care. Lengthy discussion of breast feeding being one of the most recurring themes in the Bengali child care manuals, Borthwick has demonstrated how the Bengali middle-class discourse on breast feeding with its insistence on feeding in regulated quantities at 'fixed' times, was in fact an emulation of the Victorian ideal of 'clockwork functioning' of the household which the bhadralok had substantially internalized in the second half of the nineteenth century.⁸⁵ Women were expected to know the physical and mental state of the infant and equip themselves with adequate knowledge of various medicines and treatments for minor disorders.⁸⁶

Despite the discussion in this chapter being chiefly on Hindu bhadralok's transforming perceptions of childbirth practices in the light of received ideas from the West, it is

⁸³ One Kumudini Sinha raised her children following the guidelines in Annada Charan Khastagir's treatise. This has been mentioned by Meredith Borthwick. See Borthwick, *The Changing Role of Women*, p.163.

⁸⁴ Shib Chunder Deb, *Sisupalan*, Part II (Calcutta, 1868).

⁸⁵ Borthwick, *Changing Role of Women*, chapter five. Also see Branca, *Silent Sisterhood*, Chapter Six.

⁸⁶ A series of articles entitled '*Sisu Palan* (Infant Rearing)' was published in all the issues of *Bamabodhini Patrika* in 1868 and 1869. See '*Sisu Palan*' *Bamabodhini Patrika*, Vol.4, 1868 and Vol.5, 1869.

worthwhile to mention that the Muslim middle class also displayed genuine interest in modernizing childbearing and childrearing practices. Such trends were amply evident in the manuals written by reformist Muslim men and women towards the end of the nineteenth century. Recent researches have questioned the age-old perception of colonial ethnographers and historians that Muslims were economically depressed under Colonial rule and that they remained resistant to western modernity and progress.⁸⁷ As Sonia Nishat Amin argues, in the case of Bengal, there was a distinct modernist consciousness amongst a section of Bengali Muslims, mostly men in Government jobs from the second half of the nineteenth century. Their agenda of reform which included elevating the social status of women was driven by the dual desires to prove themselves to the colonial rulers and to the more advanced Hindu community. Though slightly later, the Hindu *bhadralok* discourse on motherhood and child-rearing found its way into the writings of Muslim liberal reformers including that of Begum Rokeya Sakhawat Hossain. Rokeya assumed an important role in promoting female education and popularising western model of childcare.⁸⁸ However, how many middle class Muslim women adopted the western model of childcare is not clear from Amin's study. As chapter three will demonstrate, lower class Muslim women remained trapped in *purdah* which, in the perception of colonial public health officials, had a bearing on their health and adversely affected infant and maternal mortality figures.

The preceding discussion highlighted the factors that transformed the socio-cultural milieu of Bengal in the late nineteenth century and made it more receptive to western medical ideas which gradually began to find entry into what was once a culturally controlled and female guarded domain of midwifery. It highlighted the proclivities of a section of the middle-class towards appropriating western medical knowledge into the socio-cultural fabric of their everyday lives. Outwardly, such trends paved the way for a Bengali woman, Kadambini Basu, to study medicine at the CMC in 1883 even before female medical education had gained formal recognition through the foundation of the Dufferin Fund (1885). Kadambini was however, vilified by the otherwise conservative Bengali society which was more keen on educating its womenfolk in health science within the confines of the *zenana* than situating her in the professional public sphere ruled by men. Nonetheless, Kadambini set the trend of

⁸⁷ Iqbal Singh Sevea, *The Political Philosophy of Muhammad Iqbal: Islam and Nationalism in Late Colonial India* (New York: Cambridge University Press, 2012), pp.69-70.

⁸⁸ Sonia Nishat Amin, *The World of Muslim Women in Colonial Bengal, 1876-1939* (Leiden, New York, Koln: E.J.Brill, 1996), pp.93-96.

female medical education in Bengal which acquired further momentum with the establishment of the Dufferin Fund in 1885.⁸⁹

Notwithstanding the influx of western medical ideas into the antahpur, the actual conditions of birth remained largely unaltered in the second half of the nineteenth century. Women's reproductive health was still on the fringes of direct official concern. The real woman so far was merely the recipient of scientific ideas on pregnancy and infant rearing but was still outside the purview of medical scrutiny by the medical profession except in few exceptional cases. The high infant and maternal mortality cited in the censuses of 1871 and 1881 constituted strong evidence of the limited success attained in modifying the conditions of childbirth. The unpopularity of the male doctors amongst Bengali females and the persistent opposition of the male dominated medical establishment to train women doctors, led to sporadic endeavours being made by the colonial state to train the native dhais in the 1870s and 1880s albeit with limited success. The Government held that 'the scope of the experiment should not be confined solely to cases of actual childbirth in the bulk of which probably very little professional knowledge is wanted, but that it should extend also to the diagnosis and treatment of special female diseases...Native women especially of the upper classes from their confined and secluded lives are liable to attacks to this class of diseases and in which they absolutely refuse to place themselves under the treatment of medical men though they would gladly resort to trained midwives.'⁹⁰ Around this time, a medical missionary Miss Elizabeth Beilby was requested by the Maharani of Punna to ask Queen Victoria to rescue the sick women of India through proper medical attention. Acting upon Miss Beilby's account, the Queen advised Lady Dufferin--who was ready to set her foot in India along with her newly appointed Viceroy husband Lord Dufferin--that something be done to bring medical aid to the women in India. The advice was tinged with a subtle reference to the 'significant political benefits' that such an endeavour could bring to the colonial government and 'cast it in a benevolent light.'⁹¹ Also the abundance of women doctors in Britain and lack of professional opportunity there due to the dogged resistance of the British male dominated medical establishment made it convenient for the Queen to permit the women doctors to

⁸⁹ Karlekar, 'Kadambini and the Bhadraklok'.

⁹⁰ WBSA, Judicial Department (Medical Branch), File No.63, Progs No:7-9, Dec, 1873.

⁹¹ Sean Lang, 'Saving India through its Women', *History Today*, Vol.55, No.9, September 2009, pp.46-47.

practice in India where the medical education of women was still in a rudimentary stage.⁹² Hence, Lady Dufferin's initiative led to the foundation of the 'National Association for supplying female medical aid to the women of India' in 1885. It was popularly known as the Countess of Dufferin Fund.

Founded under the aegis of the colonial state without being directly under its control⁹³, the Dufferin fund was the first major institutionalized step towards imparting medical training to female doctors, nurses and midwives, and providing medical relief to the *pardahnashin* (secluded) women through female hospitals, dispensaries and trained midwives in the zenana. Notwithstanding the initial success of the Fund partly ascribable to the financial support and enthusiasm of the affluent indigenous elites, its effectiveness in triggering the process of medicalization of childbirth was rather stultified in Bengal. The reasons are twofold: firstly, the sustained opposition by the traditional dhais to learn western methods of midwifery⁹⁴ and secondly, the unpopularity of the zenana hospitals in Bengal.⁹⁵ Subsequent attempts such as that made by Lady Curzon in 1901 to retrain the dhais through the Victoria Memorial Scholarship Fund crumbled in the face of sustained reluctance of the dhais. Yet, as the next section will show, much had been achieved in the realm of ideas. The booming print culture in late nineteenth century Bengal that educated women and enabled the dissemination of western scientific and medical ideas into the zenana also, in significant ways, led to educated bhadramahila voicing their own perception of critical social issues integral to their social and biological being. It launched the platform on which future debates on women's deteriorating social and biological status were effectively held in the twentieth century, crystallising feminist agendas for the subsequent decades.

⁹² The aversion of middle class Bengali women of the zenana, to seeking medical aid from male doctor turned out to be one of the chief motivating forces for the institutionalization of women's medicine and professionalization of women doctors in Victorian Britain. See, Antoinette Burton, 'Contesting the *Zenana*: The Mission to Make Lady Doctors for India, 1874-1885', *The Journal of British Studies*, Vol. 35, No. 3, July, 1996, pp. 368-398.

⁹³ Balfour and Young, *The Work of Medical Women*, pp.20-21. For a general outline of the Dufferin Fund, see Arnold, *Colonizing the Body*, pp.260-268; Maneesha Lal, 'The politics of gender and medicine in colonial India: The Countess of Dufferin Fund, 1885-1888', *Bulletin of the History of Medicine*, Spring 1994, pp.29-66.

⁹⁴ Supriya Guha, 'From Dais to Doctors: The Medicalisation of childbirth in colonial India' in Lakshmi Lingam ed., *Understanding Women's Health Issues: A Reader* (New Delhi: Kali, 1998), pp.145-162.

⁹⁵ Supriya Guha, "'The Best Swadeshi': Reproductive Health in Bengal, 1840-1940", in Sarah Hodges ed., *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).

The Response of the Bhadramahila

An analysis of the women's writings in the popular women's magazines of the late nineteenth and early twentieth centuries reveal divergent patterns of thoughts on a complex gamut of issues pertaining to domesticity, child-bearing, child-rearing and women's health which went under the titles of '*grihe ramanir kartabya*', '*sutikagrihe prasutir susrusa*', '*santan palan*' and '*Bharat Mahilar Svasthya*' respectively. Early women's magazines like *Bamabodhini Patrika*, *Bangamahila*, etcetera which were entirely run by Bengali male reformers of a liberal disposition, accommodated women writers' views on domestic and conjugal matters. Such writings were, however, circumscribed by the socio-cultural predilections of the patriarchy. Ghulam Murshid has highlighted the limited nature of Bengali women's response to social reform which, according to him, was a consequence of lack of understanding of certain economic and legal rights such as the right to property and marriage laws. Freedom, according to Murshid, was understood by Bengali women as improvement of their degraded social position and not as 'emancipation' or 'liberation' in terms of economic independence or sexual liberty.⁹⁶ Himani Bannerji has however, argued that the very participation of women in the print culture of the nineteenth and twentieth centuries enabled them to 'contribute to this formative process of their social subjectivities and agencies'⁹⁷ even though the dichotomous nature of this participation alternating between collaboration with patriarchal ideas and resisting them at the same time, was very evident at all times. In the process, women emerged as both 'resisting agent and collaborator' of the patriarchal order.⁹⁸ The contradictory trends were abundantly manifest in the educated women's writings, for instance, in the simultaneous exaltation of the patriarchal injunctions on motherhood and the outright condemnation of the practice of child-marriage. Yet as Barbara Southard reminds us, the Bengali feminists in the nationalist period remained within the bounds of 'social feminism' that stopped short of demanding equality with men.⁹⁹ That also accounts for their

⁹⁶ Ghulam Murshid, *Reluctant Debutante: Response of Bengali Women to Modernization, 1849-1905* (Rajshahi: Sahitya Samsad, 1985), See Introduction and Chapter Three.

⁹⁷ Himani Bannerji, 'Fashioning a Self: Educational Proposals for and by Women in Popular Magazines in Colonial Bengal', *Economic and Political Weekly*, Vol.26, No.43, Oct, 1991, p.50.

⁹⁸ Anindita Ghosh, *Behind the Veil: Resistance, Women and the Everyday in Colonial South Asia* (Delhi: Permanent Black, 2007). This point is made by Ghosh drawing upon similar arguments made earlier by Ranjit Guha in 'The Career of an Anti-God in Heaven and on Earth', in Asok Mitra ed., *The Truth Unites* (Calcutta: Subarnarekha, 1985).

⁹⁹ Barbara Southard, *The Women's Movement and Colonial Politics in Bengal: The Quest For Political Rights, Education and Social Reform Legislation, 1921-1936* (New Delhi: Mahohar, 1995), Chapter Three.

ideological commitment towards upholding the nationalist perception of woman as mother and wife. Hence, the conceptualization of women in the wife-mother role remained largely unchallenged even by the most critical women writers of the period.

The incipient feminist consciousness that permeated the women's writings in the early twentieth century offer meaningful insights into the subtle shifts in the women's question that took place at the turn of the century. In a cultural ambience created by the Brahmo reformers from the mid-nineteenth century onwards that was particularly conducive to the education of women, the Wood's Despatch of 1854 played a significant role in triggering expansion of female school education in Bengal. From 1880s, under the influence of Samadarshi Dal-a liberal group formed out of the Brahmo Samaj-college education (including medical education for women) expanded. By 1900, a substantial proportion of the middle class women in Bengal, as compared to the Bombay and Madras Presidencies, had graduated from Calcutta University.¹⁰⁰

In the first two decades of the twentieth century, participation of women in public sphere was facilitated by their employment as teachers and doctors.¹⁰¹ In Bengal, the trend of women embracing career in medicine and later scientific education was shaped by the ideals of the later day Brahmo Samaj leaders. The Brahmo reformers worked towards promoting greater co-operation between men and women by for instance, encouraging them to sit together in religious prayer meetings from the 1870s or welcoming bhadramahila in social gatherings such as tea parties.¹⁰² Some of the later days Brahmo Samaj leaders such as Shibnath Sastri, Manmohan Ghose and Dwarkanath Ganguly who went on to form the Sadharan Brahmo Samaj in 1878, fought against 'double standards in education for men and

¹⁰⁰ For instance, the reports on the Progress of Education in India for the year 1902 shows that in that year, out of the 177 female college students in India, 55 were from Bengal, with only 5 from Madras and 2 from Bombay and United Provinces. From 1897 to 1902, 37 women graduated from the Calcutta University as against 7 students from Madras, 1 from the United Province and 1 from Bombay. 'Progress of Education in India, 1897-1902', p.299, quoted in Karlekar, 'Kadambini and the Bhadrakalok', p.29 and fn 34. According to the Census of Calcutta, in 1901, literate women formed 9.7% of the total female population as compared with 3.36% in 1876. See Censuses for Calcutta, Towns and Suburbs, 1876, 1901 as quoted in Borthwick, *The Changing Role of Women*, fn.181.

¹⁰¹ It was only after post Second World War period that middle class women took up jobs as stenographers, telephone operators, office girls etc. See Bharati Ray, 'Women of Bengal: Transformation in Ideas and Ideals, 1900-1947' in *Social Scientist*, Vol.19, No.5-6, May-June 1991, p11.

¹⁰² See Borthwick, *The Changing Role of Women*, pp.259-260.

women.’¹⁰³ Dwarkanath Ganguly, for instance, encouraged science and medical education for women on the ground that women had right to similar kind of knowledge that was hitherto meant exclusively for men.¹⁰⁴ By the 1920s, awareness of the need for ‘self-development’ amongst literate bhadramahila had grown strong and the opportunity offered to them by Gandhi to participate in political activities led to an increased demand by them for higher education including science education as evident in the *Sixth Quinquennial Report on the Progress of Education in Bengal* (1917-1918 & 1921-1922).¹⁰⁵ Awareness of the ills of child marriage, early pregnancies, infant mortality and silent sufferings that often went undiagnosed earlier forced a critical evaluation of the oppressive social conditions under which they languished.¹⁰⁶

Following bhadralok’s deepening involvement in nationalist politics in the wake of the anti-partition agitation in 1905, educated women embraced the task of promoting their own cause. Women’s question at the turn of the century essentially pivoted around educational reforms and eradication of certain social practices such as child marriage. The *mahila samitis* (women’s organization) such as the *Banga Mahila Samaj* (1879) and *Sakhi Samiti* (1886) which were founded by educated middle class women from elite families promoted education and employment of widows, also holding discussions on subjects like science and hygiene and certain aspects of gender relationships.¹⁰⁷

It was not before the Gandhian era of the 1920s that the political demands of women as right bearing subjects began to be articulated on a national scale indicating a major break from the nationalist patriarchal paradigm which had hitherto set the parameters of women’s question.¹⁰⁸ In Bengal, as Barbara Southard’s detailed study of women’s movement from

¹⁰³ See David Kopf, *Brahmo Samaj and the Shaping of Modern Mind* (New Jersey: Princeton University Press, 1979), p.124.

¹⁰⁴ Karlekar, ‘Kadambini and the Bhadraklok’ p.26.

¹⁰⁵ Rachana Chakraborty, ‘Women’s Education and Empowerment in Colonial Bengal’ in Hans Hagerdal ed., *Responding to the West: Essays on Colonial Agency and Asian Agency* (Amsterdam: Amsterdam University Press, 2009), p.96.

¹⁰⁶ Hemantakumari Chaudhury, ‘Bharat Mahilar Svasthya’ (Health of Indian Women), *Antahpur*, Vol.4, No.7, July 1901, pp.149-151.

¹⁰⁷ Murshid, *Reluctant Debutante*, pp.94-95.

¹⁰⁸ Ibid.

1921 to 1936 suggests, the *Bangiya Nari Samaj* and the Bengali Women's Education League fought for women's suffrage and inclusion of girls in universal education schemes respectively. Women's suffrage was, however, not perceived by the Bengali female activists as an isolated political issue but as a viable political weapon to promote social and educational reforms in favour of women.¹⁰⁹ The resolution of women's question no longer lay in reforming women but in uprooting certain societal practices, on behalf of women, the most telling example being the appeal of women to modify the institution of child-marriage that eventually led to the passing of the Sarda Act in 1929.¹¹⁰

The spawning of the print culture had already opened up new discursive spaces for literate women from the latter half of the nineteenth century. The writings of women authors like Krishnabhabini Das, Swarnakumari Devi and of numerous such contributors to women's journals in the late nineteenth century were charged with emancipatory potentials that occasionally transcended the bounds of male controlled intellectual discourse.¹¹¹ The demands for higher education, for instance, were carefully laced with notions of personal and social advancement, and as Krishnabhabini's writings revealed, a thrust towards 'economic viability' and greater social power.¹¹²

However, it was child-marriage and female education that remained the two most prominent issues in the women's demands for social and educational reforms, being discussed and debated from the second half of the nineteenth century. As early as in 1863, Kailashbashini Devi noted in *Hindu Mahilaganer Hinabastha* (The Woeful Plight of Hindu Women) the dangers of child-marriage by highlighting its relation to early maternity and its debilitating impact on the health of the mother and the infant. She thus stated:

Unless child marriage is prevented, our land will never have happiness and prosperity, marital harmony will never be established and girl children will never escape the harrowing torment of widowhood; child marriage has emerged as one of the main

¹⁰⁹ Southard, *The Women's Movement and Colonial Politics in Bengal*, Chapter Three.

¹¹⁰ Sinha, *Specters of Mother India*, p.51.

¹¹¹ Malini Bhattacharya has argued how education had the potential of empowering women although that power, was used 'not merely to serve the revised needs of the family and the home, but for self-development and expression; it is a conceptual tool which allow the woman to critique effectively the various inequities of her social condition.' For details see, Malini Bhattacharya and Abhijit Sen ed., *Talking of Power, Early Writings of Bengali Women* (New Delhi: Stree, 2003), p.3.

¹¹² Banerji, 'Fashioning a Self', pp.55-58.

reasons for the backwardness of the Bengalis....there are instances of twelve or thirteen year old girls getting in the family way, thereby putting themselves in grave danger. Some leave this world along with the new-born...Some escape this fate themselves but lose their beloved infants...Maybe the new mother contracts post-natal maladies which cause extreme suffering; or else the infant is very sick and emaciated, adding to the parents' woes.¹¹³

At the turn of the century, educated middle class women substantially absorbed the bhadralok concerns for the unhygienic nature of midwifery practices in the *sutikagriha* and also the presumed dangers of leaving the mother and the infant to the care of the uneducated dhais. Women's writings in journals like *Antahpur* echoed such concerns and voiced the need for modernizing birthing practices.¹¹⁴ Such writings should not however blind us to what the larger majority of middle class women might have desired in terms of medical attendance during childbirth. As Maneesha Lal reminds us the ordinary middle class women could have still continued to prefer hiring local dhais who were easily accessible and affordable.¹¹⁵

However, women writers' views oscillated from being moderate in seeking reform of their existing health conditions to being radical in linking deteriorating health conditions to broader societal maladies alleged to have been perpetuated by the coercive patriarchal structure in Bengal. To explicate both the positions, I would focus on two such representative essays which were written by two women writers and appeared in *Antahpur* in 1901 and 1903.

The first essay entitled '*Bharat Mahilar Svasthya*' (Health of Indian women) written by the editor of *Antahpur*, Hemantakumari Chaudhury, drew the attention of the readers to the fact that the health of the *grihakatri* (mistress of the household) was in deplorable state of neglect. This, according to her, made health education as indispensable a component of the curriculum for female education as was 'housecraft, child rearing and cooking'. In a lamenting note she stated,

¹¹³ Kailashbasini Devi, 'The Woeful Plight of Hindu Women', in Bhattacharya and Sen ed., *Talking of Power*, p.40.

¹¹⁴ See for instance, Nanibala Dasi, '*Sutikagar e prasutir cikitsa*'; HemantaKumari Chaudhury, '*Sutikagriha*'.

¹¹⁵ Maneesha Lal, 'The politics of gender and medicine in colonial India: The Countess of Dufferin Fund, 1885-1888', *Bulletin of the History of Medicine*, Spring 1994, pp.29-66. Women like Kailashbashini Devi, Sudha Majumdar described their dhais as friendly and co-operative. See, Chandrika Paul, 'The uneasy alliance: The work of British and Bengali medical professionals, 1870-1935', PhD Dissertation (University of Cincinnati: 1997), pp.182-184.

In recent times, women's education is progressing with great speed and every year, several girls after acquiring degrees from school are becoming famous. But probing into their health conditions reveals what? Most of them suffer from poor eyesight, mental ailments or other diseases. Violation of the principles of health is the main reason. These days, our attention is towards the outside world. Often, there are protest movements on whether roads are being kept clean under the supervision of the Municipalities. But nobody seems to have the time to think about the conditions of women in the antahpur. Has anyone who is born and reared in the antahpur and has inseparable and lasting ties with the space till death, ever reflected on the conditions of the women residing there? *It is despairing to see the ill-health of the mistress of the household on whom depends the peace and prosperity of the family, society and the nation* (emphasis mine).¹¹⁶

This essay highlights the centrality of women's health in the progress of family, society and nation. Since the political contours of modern nation were yet to be outlined, nation here might have been used in a cultural sense to convey the idea of *Samaj* which as Swarupa Gupta argues, was 'an-umbrella-like concept' that could encompass families, race, castes and regions and was a powerful conceptual category in forging Bengali identity and nationhood in the pre-modern era.¹¹⁷ In driving home the importance of good physical health in enabling a woman to effectively perform household chores and responsibilities towards husband and children, the author explicitly conforms to the patriarchal position on what an ideal woman's role should be at home, in society and towards the nation. Yet, by ruminating on the bodily ills plaguing the life of women, she hints at the poor status of women in Bengali society but quite evidently abstains from an outright criticism of patriarchy.

The publication of this essay evoked an interesting response from an ordinary housebound woman who identifying herself as Sarojini Devi, referred directly to the uterus. Uterus, she stated, was the most important organ sustaining the reproductive life of women. A variety of diseases associated with the organ not only afflicted women but also significantly affected their childbearing capacities in certain instances.¹¹⁸ The response clearly shows that at least a

¹¹⁶ Chaudhury, 'Bharat Mahilar Svasthya', p.150.

¹¹⁷ Swarupa Gupta, 'Notions of Nationhood in Bengal: Perspectives on Samaj, 1867-1905' *Modern Asian Studies*, Vol.40, No.2, May 2006, pp.273-302.

¹¹⁸ Sarojini Devi, 'Mahilar Svasthya Sambandhe Koyekti Katha' (Few words about Indian women's Health), *Antahpur*, Vol.4, No.12, December 1901, p.269.

section of the Bengali bhadramahila had become conscious of their health issues in concrete medical and physiological terms, and was not shy of talking about them in the public arena.

The next essay entitled '*Mahilar Svasthya*' (Women's Health) was written in 1903 by a woman writer who preferring anonymity called herself 'an ordinary Hindu woman'. This essay is perhaps more illuminating in terms of the manner in which it chose to explicate the decline in the physical, mental and reproductive health of women. In so doing, the essay transcended the restrictive boundaries of the patriarchal Bengali society and articulated an incipient but distinct feminist consciousness. Those deeply entrenched social customs of child-marriage and early motherhood that were sanctioned and seemingly normalized in the revivalist-patriarchal discourse of the late nineteenth century were interrogated. Three reasons were cited for the deterioration of health of Bengali women: bearing too many children at a young age, the moral degradation of men and lastly, laziness of women. Instead of directly denouncing child-marriage, early consummation was condemned as a potent evil affecting a young bride's health while early motherhood was squarely blamed for an entire range of socio-cultural deprivations suffered by women. The essay stated,

Young mothers not only are not able to entertain their husbands but are also incapable of showering the infant with affection....90% of the middle-class women are deprived of proper nutrition and care....The concern of the husband's family is to see whether the daughter-in-law could give birth to an offspring but no one bothers about her health. Some women die immediately after giving birth. The rest keep conceiving every year. How can such *frequent pregnancies* ensure good health? Today, in the Hindu homes, the 16/17 years old girls are seen to be mother of three/four children..... my dear sisters, *if we don't look after our body, who else will?*(emphasis mine)¹¹⁹

This talk of agency accompanied a condemnation of the moral depravities of the men. The mental agony of rearing so many children left the young mother tired and emaciated and in turn, deprived her husband of adequate care and love. Such husbands looked for pleasure in the prostitutes' quarters. Ruminating on this moral degeneration the author of the essay finally wondered, 'why so many young men in losing their moral character are also falling prey to new diseases and losing their lives?.... even being alive so many of them are getting

¹¹⁹ '*Mahilar Svasthya* (Women's Health)', *Antahpur*, Vol.4, No.3, June-July 1903, p.58.

afflicted with obnoxious diseases that are jeopardizing the lives of their wives and the future race. Why isn't anybody giving a thought to such evils?'¹²⁰

This article therefore constituted a powerful critique of patriarchy. It sought to establish women's control over their own bodies as simultaneously a liberating and empowering exercise. Yet what remained unaltered in these early expressions of feminism was the continued adherence to the cultural categories of *janani* (motherhood) and *grihini* (mistress of the household) as the only valid frames of references in defining the essence of womanhood. Such cultural categories placed women, in women's own perception, at the heart of the national agenda of progress and regeneration.

Conclusion

This chapter has analysed the broader socio-political context in which western medical discourse on women's health, childbirth and midwifery were diffused in the Bengali middle class homes in the nineteenth century. The colonial critique of existing socio-cultural customs repeatedly disconcerted the bhadralok prompting reform initiatives. Educating and modernizing the womenfolk of the household was prioritised in the reform movement of the nineteenth century and emerged as an inevitable adjunct to the process of reconciliation with new socio-economic conditions imposed by colonial rule. Also the bhadralok preoccupation with health and the awareness of the need to purify and strengthen the body led to new principles of health being enunciated. It simultaneously aroused a new interest in the mechanisms of body. However, the more immediate factor necessitating reform of midwifery practices at home was the increasing public awareness of the high infant mortality which was brought to the fore by the popular journals and official reports. The high rates of infant mortality were attributed to the failure on the part of the dhai and the women of the household to adhere to scientific methods of conducting labour. Hence, instructions on ways to rationalise midwifery practices emerged as part of the general education of the bhadramahila.

Quite interestingly, much of the western medical ideas on midwifery that were disseminated through the women's journals in the nineteenth century (such as debates on the need for hygienic sutikaghar or importance of the disproportion of the size of foetal head and pelvic

¹²⁰ Ibid.

structure in detecting abnormal birth or even the denunciation of dhais) acquired centrality in the nationalist discourse on maternal and child welfare in the twentieth century. In a significant way therefore, nineteenth century debates could be said to have laid the discursive groundwork for twentieth century discourse on the subject. Only the context and the rationale had changed. Thus, while the nineteenth century arguments were driven by reason and the bhadralok urge to modernize and self-improve, the twentieth century ones had explicit nationalist and political overtones and often got drawn into a highly charged emotional debate on motherhood and future of the Bengali race.

To conclude therefore, in the nineteenth century, modern-scientific ideas of child birth, child rearing and the general issue of women's health were gradually finding their way into the fabric of the Bengali society. Practices were slow to change. Yet there was an increasing awareness of the need to wrest midwifery from the control of the dhais and put it in the hands of trained professionals. The starting point was the incorporation of midwifery into the medical curriculum of the Calcutta University in 1841 followed by the rise of a class of male and female practitioners with their distinctive contributions to the field. To that we turn in the next chapter.

Chapter Two

The Institutionalization of Midwifery and the Constitution of a Medical Discourse, 1860s-1930s

In an introductory lecture on obstetrics to the students in the Queen's College, Galway (Queen's University of Ireland) in 1878, Dr R.J. Kinkead redefined midwifery and diseases of women in the scientific terms of obstetrics and gynaecology. Kinkead also iterated the importance of obstetrics in medical science in the following words,

the fact is becoming more and more realised that obstetrics and gynaecology are portions of medical science requiring the highest faculties of mind to comprehend, containing problems the most intricate to solve, operations calling forth the most finished surgical skill, and affording a key to the study of general disease found in no other branch...there is no branch of your profession so important for you to know thoroughly as that relating to obstetrics and diseases of women.¹

Kinkead's words point to a perceptible shift in the British medical profession's view of midwifery in the late nineteenth century. By then, the medical profession had gradually ceased to consider it as a subject unworthy of being studied by a 'cultivated mind' or a 'powerful intellect'.² The earlier trend of depriving the practitioners of midwifery from fellowship of the College of Physicians and barring them from sitting in the council of the College of Surgeons prior to 1828 had also ceased. However, it was the promulgation of the Medical Amendment Act of 1886 that stipulated that examination in midwifery be made compulsory along with medicine and surgery for the purpose of registration of all practitioners.³ The Act constituted a vital step towards making midwifery part of medical education and training in Britain. Bengal being one of the strongholds of the British colonial empire in India fostered the most elaborate and well-entrenched medical establishment along

¹ R.J. Kinkead, 'Obstetrics As A Branch Of Education: Being An Address Introductory To The Course Of Lectures In Obstetric Medicine In The Queen's College, Galway, For The Session 1878-79', *The British Medical Journal*, Vol.2, No 937, Dec.1878, pp.870-871.

² Kinkead, 'Obstetrics as a Branch of Education', p.871.

³ Irvine Loudon, *Death in Childbirth: An International Study of Maternal Care and Maternal Mortality, 1800-1950* (Oxford: Clarendon Press, 1992), see Chapter Twelve.

western medical lines. Following the foundation of the Calcutta Medical College (CMC) in 1837, midwifery was incorporated into the syllabus of the CMC in 1841.

This chapter will examine the processes through which midwifery was institutionalized and evolved into the medical discipline of obstetrics in colonial Bengal. The central concern is to analyse the various axes around which medical education and practice of midwifery were instituted. The training of dhais or their replacement with midwives trained in western medicine constituted a principal axis. The other major axis, which also forms the key focus of the chapter, was the realignment of professional relationships between the female and male medical practitioners of midwifery, with the former dominating the realm of actual practice (i.e. attending women in childbirth) and the latter contributing to the more theoretical domain of midwifery education and research on obstetrics. How much of the vision for improving medical education in obstetrics and gynaecology such as that underscored by Kinhead was appropriated and accommodated in the expanding western medical pedagogy in colonial Bengal?

The analytical framework of this chapter is shaped by the interrogation of the two streams of thought dominating the historiography of childbirth in the West and in India. Existing historical scholarship on medicalization of childbirth in the West has identified the incursion of surgery/technology into the realm of midwifery as an undisputed sign of male ascendancy in the profession as it happened in England, Europe and America. This line of interpretation perceived the displacement of female birth assistants by male physicians as the principal factor driving medicalization and technological expansion of the discipline of midwifery.⁴ On the other hand, historians and anthropologists examining the history of medicalization of childbirth in India cite the practice of seclusion amongst respectable Indian females as a powerful cultural constraint. In so doing, they uncritically assume the absence of male professional involvement in midwifery as an unquestionable historical fact and instead argue for the centrality of the role of the female doctors in medicalizing childbirth and professionalizing midwifery in India.⁵

⁴ See for instance, Jean Donnison, *Midwives and Medical Men: A History of the Struggle for the control of childbirth* (London: Historical Publications Ltd, 1993); Jane B. Donegan, *Women and Men Midwives: Medicine, Morality and Misogyny in Early America* (New York: Greenwood, 1978); Charlotte G. Borst, *Catching Babies: the professionalization of childbirth, 1870-1920*, (Cambridge, Mass: Harvard University Press, 1996); Lianne, McTavish, *Childbirth and the Display of Authority in Early Modern France* (Aldershot: Ashgate, 2005).

⁵ Supriya Guha, 'A History of the medicalization of childbirth in Bengal in the late nineteenth and early twentieth centuries', PhD dissertation (University of Calcutta, 1996); Dagmar Engels, 'The Politics of

The chapter will however, argue that in Bengal medical intervention in childbirth did not reflect a clear-cut ascendancy of male medical professionals marginalizing/uprooting the dhais, as it was claimed to have happened in the West. It also disagrees with the Indian historiography putting the sole spotlight on the agency of female medical practitioners in medicalizing childbirth. To address the lacuna, the chapter seeks to analyse the role of both female and male practitioners in marking their own spheres of dominance in the domain of midwifery. It brings into sharper historical focus the contribution of male physicians towards modernizing midwifery practices. The contribution of male physicians was however, more ideological and pedagogic, than being directly interventionist. Medicalization of childbirth, the chapter argues, was preceded by the constitution of a medical discourse on midwifery that led to it being redefined as the science of obstetrics, a process enabled by the incorporation of midwifery in the Calcutta University curriculum in the mid nineteenth century under the initiative and guidance of the faculty of the CMC, consisting entirely of male doctors, both indigenous and British. Yet, the actual practice of midwifery as a specialized branch of medical science gained widespread acceptance with the intervention of female medical professionals as opposed to the lay midwives, who attended women during childbirth and also fostered ‘hospital habit’ among them in the late nineteenth and early twentieth centuries.

In explicating this argument, the chapter will touch upon the following themes: it will highlight the hurdles encountered by the CMC authorities in evolving the practical teaching of midwifery including conducting actual labour cases and demonstrations in operative/surgical obstetrics. In this context, it will explain the rise of female practitioners in response to the medical needs of the segregated womenfolk of the Bengali society. However, in seeking to carve a niche in the male controlled medical profession, the women doctors did not deviate much from the male dominated medical ethos that overwhelmingly guided professionalized obstetrics in the twentieth century. The chapter will bring to light the role of Indian male doctors by evaluating it not in terms of the extent of their accessibility to the upper-caste purdah women but in their instrumentality in buttressing the scientific and theoretical foundations of midwifery. It will show the sustained presence of male physicians in multiple roles of university professors, researchers, composers of tracts on the science of reproduction and finally, as nationalists. It will argue that the agency of Indian male

Childbirth: British and Bengali women in contest, 1890-1930’, in *Beyond Purdah? Women in Bengal, 1890-1930*, (New Delhi: Oxford University Press, 1996); Cecilia Van Hollen, *Birth on the threshold: Childbirth and Modernity in South India* (New Delhi, Zubaan, 2003).

obstetricians/physicians should not solely be understood through the constricted prism of professionalism but in a broader and more pervasive framework of nationalism.

The Art of Midwifery

Prior to the ascendancy of the modern medical profession, midwifery was almost universally a female regulated cultural domain. This section will briefly touch upon the specific cultural practices surrounding childbirth in colonial Bengal. The objective is also to identify those socio-cultural stereotypes that influenced the reconceptualization of midwifery as a scientific-medical discipline and significantly affected its institutionalization in colonial Bengal. A brief outline of the cultural ambience that surrounded birth in Bengali Hindu households is perhaps a convenient starting point of the discussion.

One of the earliest and professedly ‘simple but faithful delineation’ of Hindu social and cultural life with all its ‘many incrustated defects and deficiencies still lurking in our social system’ came from the pen of Shib Chunder Bose. Being an ‘enlightened’ Brahmo and also having ‘received the stirring impulse of western culture and thought’, Bose claimed to produce a critical insider’s account of the Hindu society in the late nineteenth century, which was chiefly intended for ‘English readers’ and for those engaged in the work of ‘religious regeneration and social reform in India.’⁶ Bose’s critical description of the process of childbirth in a typical Hindu home in Bengal assumes greater significance in revealing the self-critical and deeply introspective mood of the western educated Bengali middle-class in the late nineteenth century.⁷ To quote Bose,

When the period of delivery arrives, and to her it is an awful period which can be more easily conceived than described, the girl writhing under agony is taken into a room called Sootikaghur or Antoorghur, where no male members of the family are admitted. She is made to wear a red-bordered robe and two images of the goddess Shashthi made of cow dung are placed near the threshold of the room for her daily worship....for one

⁶ Shib Chunder Bose, *The Hindoos As They Are: A Description of the Manners, Customs and Inner Life of Hindoo Society in Bengal*, 2nd Edition (Calcutta: Thacker, Spink & Co., 1883), Prefatory note.

⁷ Bose’s view should be accepted with caution. Being a Brahmo of the liberal reformist disposition, Bose might have taken a more critical view of the Hindu society and its cultural practices than might have existed in reality and hence, his agenda was chiefly a modernizing one. His view is important in understanding the skepticism towards one’s own society and culture that had come to dominate Bengali intellectual thought in the nineteenth century as a result of contact with Western civilization.

month-- the period of her confinement. If in her tender age, the labour be a protracted one, she often suffers greatly from the want of a skilful surgeon or even a proper midwife. Before the founding of that noble institution, the CMC, proper midwives were not available, because they had no systematic training; their profession was chiefly confined to the Dome and Bagthee caste.⁸

As Bose's account reveals, the whole gamut of practices regulating childbirth in early colonial Bengal was determined by age-old religious and cultural practices. Even the choice of the smallest and allegedly the most ill-ventilated room as the *sutikaghar* (where birth took place) was dictated by the imperative of keeping out 'demons' and 'malign spirits' and more significantly, of shutting out the 'polluting' act of birth from the main premises of the household. The perception of the polluting nature of birth in Hindu ritual practices led to it being conducted by dhais belonging mostly to low, 'untouchable' castes such as Dome and Bagdi.

Cultural observances blending with popular cult worship continued well into the post-natal period. As Bose describes, this included the well-established and ubiquitous custom of invoking and worshipping goddess *Shashthi* as the 'protectress of children' on the sixth day after birth and performing the ceremony of '*autcowroy*' (eight cowries) on the eighth day. However, more rational and less rigorous alternatives to such time-honoured practices were also sometimes resorted to. One such variant was the *Hariloot* system in which the pregnant woman was spared of an array of strict observances followed in the older system such as abstaining from cold water or drinks and '*jhall*' (spices) and '*thap*' (fire) after delivery. Under the modified Hariloot system, the length of seclusion from main household in the post-partum period was cut short from one month to one week by bathing her in cold water immediately after delivery and feeding her ordinary food of '*dal vaath*' (rice and lentils), curry, fish and tamarind.⁹

For the larger part of the nineteenth century therefore, the process of childbirth remained firmly ensconced in a complex set of cultural and ritualistic practices controlled by the dhai and the female members of the household. As reverend Lal Behary Dey described in his portrayal of rural Bengal, the dhai /midwife being a key figure in the socio-cultural functions

⁸ Bose, *The Hindoos As They Are*, pp.22-25.

⁹ Ibid.

revolving around the occasion of birth, was usually looked upon as a familiar, motherly figure having secret liaison with God (*Vidhata*) who confirmed the destiny of the child on the sixth night of birth.¹⁰ Her remuneration varied according to the financial status of the family and the sex of the child, the delivery of a male child assuring greater sum of money and gifts. Moreover, her role was conceived more in social than in medical terms. It often stretched to include looking after the mother and her new born child and performing few household chores, a trend that was evident in other parts of the world as well.

However, in the perception of the British medical professionals and missionaries, what set India apart from other countries in terms of response to western medical practice, was the projected image of Indian women's abhorrence for instruments. The Bengali woman's presumed fear of instruments and operations often featured in official correspondence including the earlier annual reports of the Bengal Branch of the Dufferin Fund.¹¹ In some instances, women's fear of instruments was projected as being symptomatic of the strong aversion of the 'simple and timid' Indians, in general, towards surgery.¹² As late as in 1915, a missionary nurse from New Zealand who worked in one of the outlying districts of India described the reaction of two female relatives of a woman in labour on seeing instrument being introduced by the doctor, in the following words,

¹⁰ Lal Behary Dey, *Bengal Peasant Life* (London: Macmillan, 1878), p.38. Like Shib Chunder Bose, Lal Behary was a graduate of Scottish Church College who later converted to Christianity. Hence, Dey's views should also be accepted with some caution as it was essentially written from a reformist point of view.

¹¹ For instance, a British medical professional described Bengali women's fear of surgery in the following words, 'It is however remarkable how very timid and reluctant they are to face bodily pain and to submit even to the smallest operation' Report of the Bengal Branch of the Countess of Dufferin Fund for the Year Ending, 30 November 1895, p.6 as quoted in Chandrika Paul, 'The Uneasy Alliance: The Work of British and Bengali Medical Professionals in Bengal, 1870-1935', Unpublished PhD Dissertation (University of Cincinnati, 1997), p.297.

¹² To cite an example, Dr Rufus C. Thomas, who was the chief medical officer in one of the princely states in the Northern part of India reminisced about the response of a husband whose wife had undergone caesarean Section in 1934 in the following words, 'I had obtained the husband's permission to do a caesarean section, Had actually removed the child, and was proceeding to suture the uterus, when the husband burst into the theatre and demanded to take his wife home immediately. When it was explained that the operation was almost over, he waited outside, and when I came out repeated his intention of taking her forthwith. The danger of such a course did not seem to impress him, though it was fully explained to him in his own language by my House Surgeon. After much argument, he eventually agreed to leave her in the hospital for a week. He made several nocturnal attempts to remove her before the week was up, and we finally had to let her go. Rufus C. Thomas, 'Some Surgical Difficulties in India', *The British Medical Journal*, Vol.1, No.3826, May 1934, p. 807.

When one of them sees instruments being introduced, she rushes yelling from the room and tells some awful tale to all those sitting outside. For a few minutes, it sounds as if there is going to be a riot: but we continue working and perspiring.¹³

However, the issue of instruments would arise only if women sought professional medical help. In Bengal, it was the impenetrability of zenana that emerged in the writings of contemporary medical practitioners as the most important socio-cultural barrier to the institutionalization of midwifery practice in Bengal. According to such writings, well-entrenched notions of modesty and shame (*lajja*) that governed the cultural deportment of purdahnashin women dissuaded them from seeking medical assistance from a male doctor. For instance, Dr Margaret Balfour, one of the leading female practitioners in early twentieth century India, stated in her account that, 'it is in childbirth that the full horror of the purdah system is seen, when women are allowed to die undelivered sooner than show themselves to a man.'¹⁴ Purdah system also accounted for the exclusion of midwifery from the syllabus of the CMC before 1841 on the ground that 'from the peculiar customs and prejudices of the country, (midwifery) is an unnecessary accomplishment to the native practitioner.'¹⁵ However as the chapter will demonstrate, the image of female resistance to male medical aid was rather overstated. As Maneesha Lal has aptly argued, purdah was overemphasized by the proponents of female medical aid at the cost of overlooking other major factors such as poverty, education, sanitation and nutrition that could have been equally responsible for limiting women's access to health care.¹⁶

It is interesting to note that midwifery was incorporated into the medical curriculum of the Calcutta University in 1841 amidst such perceived socio-cultural constraints. Although that did not immediately alter the meaning of birth as practised by the Bengali dhais, the inclusion of midwifery as part of medical education did underscore the broadening of its epistemological dimensions and subsequent recasting as a scientific paradigm. It also marked the beginning of a long drawn out process of its reconstitution under the professional and

¹³ See 'Midwifery in India', *Kai Tiaki*, Oct 1915, p.192.

¹⁴ Margaret Balfour and Ruth Young, *The Work of Medical Women in India* (Oxford: Oxford University Press, 1929), p.3.

¹⁵ Quoted in Christian Hochmuth, 'Patterns of Medical Culture in Colonial Bengal, 1835-1880', *Bulletin of The History of Medicine*, Vol.80, No.1, 2006, p.51.

¹⁶ Maneesha Lal, 'The Politics of Gender and Medicine in Colonial India: The Countess of Dufferin Fund, 1885-1888', *Bulletin of the History of Medicine* 68 (Spring 1994), pp. 29-66.

academic expertise of the medical faculty in Bengal, consisting mainly of the Indian Medical Service (IMS) officials.

The Science of Midwifery

The story of scientification of midwifery in Bengal is deeply associated with the inauguration of the CMC in 1837. The Medical College which institutionalized western medical science in India played a pivotal role in laying the basis of a new pedagogy on midwifery. The doctors of the IMS serving as professors in various branches of medicine provided the initial blueprint on which the teaching and training in midwifery were instituted. Yet the debates at the time of the foundation of the Medical College show the initial reluctance of the colonial medical personnel towards establishing a lying-in hospital within the precinct of the college.

On being questioned about the utility of a scheme to establish a lying-in hospital by the Fever Hospital and Municipal Improvement Committee in 1838, Dr Madhusudhan Gupta expressed his deep-seated apprehensions.¹⁷ Gupta strongly felt that 'owing to many insurmountable prejudices that prevail among all classes of the Natives, as to staying in Hospital', the utility of such a hospital would eventually be confined to the 'lower classes of the Natives' and the poor Muslim and Christian women.¹⁸ Instead he proposed the creation of a lying-in ward with twenty beds to be attached to the newly established Fever Hospital and also encouraged the establishment of a 'school of midwifery'. The proposed school would be charged with the crucial tasks of delivering practical instructions on the anatomical details of pelvis and other vital reproductive organs to the local women (and not those male students who were going into medical training) who would be trained as midwives for two years and awarded 'certificates of proficiency' on performing satisfactorily in the examinations. Thus, despite initial doubts, Gupta had at an early phase of the institutionalization of western

¹⁷ Dr Madhusudhan Gupta was initially a practitioner of Ayurveda or traditional Indian medicine. Later on he obtained training in western medicine and was in fact, the first Hindu to have dissected a human body and therefore, to have broken a long-standing religious taboo of the Indians against dissection. For details see, Deepak Kumar, 'Medical Encounters in British India, 1820-1920', *Economic and Political Weekly*, Vol.32, No.4, Jan.1997, pp.166-170.

¹⁸ West Bengal State Archives(WBSA), *General Committee of the Fever Hospital and Municipal Improvements*, Miscellaneous Evidences and Papers, Appendix F, No.27, 1839, pp.87-88.

medicine, envisioned the systematization and rationalization of midwifery practice in Bengal through training and education of indigenous females.¹⁹

Thus, even in the midst of profound misgivings, a lying-in hospital, with provision for the treatment of 100 women was established in the Medical College in 1840. It was built with funds raised by public subscription. Its significance in instructing college students and in educating both European and 'native' midwives was emphasised in official correspondence as was the humanitarian concern of the colonial state for the 'loss of life' due to 'bad practice.'²⁰ Thus, the Governor General in Council assigned a sum of Rupees five hundred for expenses pertaining to the functioning of the hospital. Midwifery was introduced as a subject into the syllabus of the Medical College in 1841.

The next notable milestone was achieved in 1849 when separate professorships of anatomy and midwifery were established on a permanent basis. Mel Gorman has emphasized the centrality of clinical anatomy in asserting the superiority of modern scientific medicine and in placing the Medical College at the 'top rank of teaching anatomy in the world.'²¹ The separation of the chairs of anatomy and midwifery was therefore integral to any such schemes for further specialization in different branches of modern medicine that included anatomy, physiology and pathology. In view of the 'increasing reputation of the college and its recognition by various medical bodies in this country', the financial department of the Government consented to the permanent dissociation of the department of anatomy from that of midwifery. Thereupon, Assistant Surgeon W. Walker was appointed as the Professor of Anatomy while Dr Goodeve was reinstated as only the Professor of Midwifery from his previous role as the Professor of Anatomy and Midwifery.²² In this instance the reorganization was prompted by the need to expand and upgrade the institutional framework of the Medical College. The status of midwifery was still marginal in the scheme of scientific medical education owing to its bleak career prospects. Yet the very fact that it was recognized by a separate professorship indicates the beginning of its recognition as a medical discipline.

¹⁹ Ibid.

²⁰ National Archives of India (NAI), GOI, Home Department, Public Branch, O.C, No.22, 1 September, 1841.

²¹ Mel Gorman, 'Introduction of Western Science into Colonial India: Role of the CMC, *Proceedings of the American Philosophical Society*, Vol.128, No.2, Sept.1988, pp.276-298.

²² NAI, GOI, Home Department, Public Branch, O.C., Nos. 40/41, 24th March, 1849.

From the 1850s, the Medical College began to expand its ambit in terms of providing medical training to indigenous male students and chalking out novel ways to accommodate more of them. As scholars have recently pointed out, training indigenous students in western medicine formed one of the keystones in the broader colonial schemes of diffusing western scientific medicine to the lay public. It simultaneously underpinned their civilizing mission and the drive to evolve western medicine into a cultural force.²³ To realize these objectives, a Bengali class was started in 1851 and it was further divided into two sections in 1864. One of them was a native apothecary section to train students seeking subordinate positions as hospital apprentices in government medical service, in jail hospitals or mostly in charitable dispensaries.²⁴ The other and most relevant, was a vernacular licentiate section to prepare a class of 'minor' indigenous practitioners who would bring the fruits of western scientific medicine to the countryside. The vernacular licentiate class steadily grew in popularity. The spectacular increase in the number of students was proudly cited by the *Indian Medical Gazette* as an 'ample proof of the appreciation in which the College Medical education is held by the Natives of Bengal, and how widely the knowledge of European Medicine is spreading throughout the country.'²⁵

In 1867, the students of the vernacular class voiced their wish to be instructed in midwifery and the diseases of women and children. Owing to the popularity of this class, the demand of the students struck a chord with J. Ewart, the Principal of the CMC. Ewart considered it imprudent and unwise to inundate the country with minor practitioners bereft of any sound knowledge of midwifery and the diseases of women and children.²⁶ However, the Medical College Council expressed reluctance in giving the wish of the local students any serious consideration. One of the prominent members of the council Dr T.E. Charles argued that the practical instructions in midwifery were difficult to carry out due to paucity of actual labour cases and would eventually have to be accomplished by relying on the prostitutes due to the unavailability of female patients for demonstrative purpose. Emphasizing the marginality of

²³ Samita Sen and Anirban Das, 'A History of the Calcutta Medical College and Hospital, 1835-1936' in Uma Dasgupta ed., *Science and Modern India* (New Delhi: Centre for Studies in Civilizations, 2011).

²⁴ Sen and Das, 'A History of the Calcutta Medical College'.

²⁵ 'The Calcutta Medical College', *Indian Medical Gazette*, Vol.1, 1 July, 1866, p.187.

²⁶ WBSA, Proceedings of the Lieutenant Governor of Bengal, General Department, Medical Branch, Progs No.1-7, August 1867.

midwifery in the medical curriculum of the Bengali class of the Medical College, Dr Charles stated,

As regards midwifery I am quite clear that it is a branch of instruction which should be the very last which should be taught to this class of practitioners. When they have a special Teacher of Physiology and a special Teacher of Ophthalmic Medicine, and when all the other elements of a liberal medical education have been provided for, there might be taken into consideration the advisability of instructing them in Midwifery. I would look upon it as absolutely criminal to spend money in teaching them midwifery till all such other wants have been provided for.²⁷

Dr Charles' scepticism can be traced to the contemporary English medical men's perception of midwifery as 'forming a very insignificant portion of the education that a medical man should receive.'²⁸ In the context of Bengal however, the predominant reason cited was the habitual cultural repugnance felt by the Bengali females towards allowing 'manual interference' into their body by male doctors--a fact attested to by the indigenous Sub-Assistant Surgeons themselves.²⁹ The other more pragmatic reason was the hardship encountered in delivering practical instructions in midwifery due to non-availability of labour cases for demonstrative purposes. Hence, in a bid to avoid unnecessary expenditure in instituting separate midwifery training, two of the seven members of the Council suggested the teaching of midwifery by the teachers of medicine and *Materia Medica*.³⁰

However, the enthusiasm of the students of the licentiate class could not be stemmed by such rebuffs. Agreeing to pay 'Rupees 3 per mensem instead of Rupees 2, provided they were taught midwifery', as many as 155 students out of a class of 188 signed a petition requesting the Government to give their wish a serious consideration. Recognizing the growing popularity of the vernacular class, the Government of Bengal eventually agreed to the conditional appointment of an additional teacher of midwifery 'as an experimental measure for four months.'³¹ Accordingly, a Sub-Assistant Surgeon, Mir Ashraf Ali, who

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

³⁰ *Materia Medica* is the Latin term for a body of knowledge about substances possessing therapeutic properties which are used for making medicines.

³¹ WBSA, General Department, Education Branch, Progs No.8-11, 12-13, 18-22, February 1868.

was then a teacher of Medicine at the Agra Medical School, was selected from a group of six candidates, as the teacher of midwifery for the students of the Bengali Licentiate Class of the Medical College. As the official correspondence reveal, the class steadily increased in popularity leading to the post of the teacher of midwifery being eventually made permanent by the Government of India in 1868.³²

Training the Midwives: A More Viable Alternative

Despite the inclusion of midwifery as an academic subject, the *Indian Medical Gazette* observed that despite a class of Bengali doctors being trained in midwifery at Medical College in the hope of delivering the fruits of ‘good midwifery’ to the masses, it could assure little benefit to the poor women giving birth in their own homes in distant villages, way beyond the pale of dispensaries/hospitals and the doctors and sub-assistant surgeons attached to them. Thus, it was felt that ‘we must advance a step further, and *educate the Native daees themselves*. (Emphasis original)’³³ A deeper probe suggests that it was chiefly financial considerations that guided the Government in prioritising training of dhais over training of indigenous doctors.

However, as David Arnold argues, replacing the traditional dhais labelled as ‘ignorant’ and ‘barbarous’ with trained midwives was a colonial strategy to incorporate women into the ‘colonizing medical discourse and practice’.³⁴ Prior to this, the only major colonial intervention in women’s health in India had been the passing of the Contagious Diseases Act in 1868 which following the British Contagious Diseases Act of 1864, provided for the supervision, inspection and treatment of prostitute women in Lock Hospitals. The health of the general Indian population had figured only marginally in colonial health policy till the 1860s, the chief focus being on the army and at best, the health of the European population. However, the post 1857 transfer of power from the East India Company to the British Crown prompted the restructuring of colonial administration that came to be predicated on a closer consideration of the welfare of the people of India. It was in this political environment that

³² Ibid.

³³ ‘Native Midwifery’ *The Indian Medical Gazette*, Vol.2, Oct 1868, p.239.

³⁴ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley, Los Angeles and London: University of California Press, 1993).

the colonizing and hegemonic potential of western medicine came into fuller view, extending to the sphere of women's health, 'which thereafter assumed a prominent and emblematic position' in the successive debates on the authority of western medicine.³⁵

Training of the dhais was, therefore, a major step forward, although the lead had initially been given by women missionaries in several parts of India.³⁶ As mentioned before, in Bengal, the colonial state's effort to educate the dhais, which became visible in the 1860s and 1870s, was more predominantly driven by the logic of sending out 'into native society as large a body of *dhais* as can be procured at a *slight cost to the state*, better trained than those who now act in that capacity.(emphasis mine)³⁷ Accordingly, a scheme for training the dhais at the Medical College was sanctioned in December 1869 although it was not before the end of December 1870 that a candidate came forward for the training. Later more women 'than could be received' were recorded to have responded favourably to the scheme after advertisements were put up in the English and Bengali newspapers with the help of Brahmo leaders like Keshab Chandra Sen.³⁸ After a thoughtful consideration, the Government approved of a financially viable plan of reducing the number of dhais to be trained from eight to six and placing them under the supervision of a matron. It also provided for their accommodation outside the hospital premises.

The training of female midwives remained one of the key educational policies of the college authorities in the 1870s and 1880s although the success of the scheme remained dubious due to the opposition of the dhais and the financial constraints of the Government. The limited success of the scheme is perhaps a shining example of how the colonial state's attempt to introduce western medicine into the domain of women's health fell flat in the face of its reluctance to finance a sector which was of little direct political or economic interest to the governance of the Empire. That also accounted for the Government's overall apathy to Indian

³⁵ Arnold, *Colonizing the Body*, p.254.

³⁶ For instance, Clara Swain was the first of such women missionaries who came from New York to Bareilly in the United Provinces on 8 November 1869 and was attached to the Women's Foreign Missionary Society of The Methodist Episcopal Church. Within few years, she had numerous patients which led to the establishment of a dispensary in 1873 and a hospital in 1874 where Swain's patients were treated. Fanny Butler came to India in 1880 and was attached to the Church of Zenana Missionary Society in England. Butler worked in Jubbulpore and Bhagalpore. Others were Miss Hewlett who worked in Amritsar, Miss Rose Greenfield in Ludhiana, Miss Elizabeth Bielby in Lucknow and so on. See, Balfour and Young, *The Work of Medical Women*, pp. 16-25.

³⁷ WBSA, General Department, Medical Branch, November 1871, Progs:38-43.

³⁸ Ibid.

women's health throughout the entire colonial period. As Arnold has argued, the colonizing potential of western medicine was more fully realized when it was promoted by the colonized elite.³⁹

By the 1880s the educational and practical aspects of midwifery training provided at the CMC came to be compared with the obstetric hospital in Madras and to some extent, the Jamshedjee Jijeebhoy Hospital in Bombay. The proposal for the establishment of a new obstetric hospital within the institutional bounds of the Medical College was floated by Dr Payne, the Surgeon General of Bengal. Madras hospital's remarkable role in sending trained 'native and European' midwives out of the presidency in order to enable them to earn their livelihood by private practice was emphasized in spelling out similar plans for the proposed obstetric hospital in Calcutta.⁴⁰ Following the proposal put forward by Dr Payne, the Lieutenant Governor held discussions with Dr Coates and Dr Harvey and eventually, sanctioned an increased amount to be devoted to the new Obstetric Hospital.⁴¹ The consequence was the founding of the Eden Hospital in Calcutta in July 1882.

The newly established Eden Hospital became the focal point for the training of the dhais. Dr Payne felt that 'no means of replacing the "native" system of midwifery by better practice should be neglected. The teaching of native dhais cannot be sacrificed to that of Europeans and there is no place for it so good as the Eden Hospital.'⁴² Yet the number of dhais coming forward for training at the Eden Hospital remained low till the end of the nineteenth century.⁴³

³⁹ The resistance of the dhais to western methods of midwifery has already been noted by Balfour and Young. The recalcitrance of the dhais was also a major reason for the failure of the Victoria Memorial Scholarships Fund which was started in 1903 with the sole objective of training the dhais. Another problem was the lack of continued supervision of the dhais once they were trained. See, Balfour and Young, *The Work of Medical Women*, pp.131-132.

⁴⁰ Of late Sean Lang has argued in her study of maternity services in colonial Madras that, 'Madras Lying-In Hospital in fact played a prominent and pioneering role in maternity provision and midwifery training in India.' Lang further stated that, 'The quality of its state maternity provision proved a useful weapon for the Government of Madras in its long-running rivalry with the presidencies of Bombay and especially Bengal....The Government of Madras was particularly proud of its Lying-in Hospital.' For details, see Sean Lang, 'Drop the Demon Dai: Maternal Mortality and the State in Colonial Madras, 1840-1875', *Social History of Medicine*, Vol.18, No.3, 2005, pp 359 & 377-378.

⁴¹ WBSA, Municipal Department, Medical Branch, D.H Collection, Progs, 21-27, File No.3, 12 October 1881.

⁴² WBSA, Municipal Department, Medical Branch, Progs No: 2-5, January, 1883.

⁴³ The General Reports of the Public Instruction in Bengal recorded 7 dhai candidates at the Eden Hospital in 1892, 9 in 1895, 8 in 1898 and 7 in 1899. Cited in Fn 20, in Geraldine Forbes, 'Education to Earn: Training

Moreover, the paucity of actual labour cases continued to pose a serious constraint on the training in practical obstetrics for male students of the Medical College. Dr Joubert, Professor of midwifery at the Eden Hospital, stated that 'practical instruction in midwifery has always been a great difficulty for the students at the Medical College, and they now only conduct six cases each at the Eden Hospital, and see little or nothing of the treatment of women after labour.'⁴⁴Hence, in 1889 Joubert arrived at a solution. Drawing from the example of London hospitals, he proposed the establishment of a Maternity Department. Under such an arrangement, he stated, women who wished to avail themselves of medical aid could register themselves at the hospital so that they were able to call for assistance on the onset of labour and one of the students attending labour cases would be sent to them. In the case of his failure to handle the case, the 'Resident Obstetric Officer' or the 'Obstetric Physician' would be sent for. Such a scheme would not require women to give birth in the hospitals. It was designed to enable the Medical College students to attend midwifery cases in the homes of the patients. Accordingly, the Lieutenant-Governor sanctioned the establishment of a Maternity Department to be attached to the Eden Hospital for one year as an 'experimental measure'.⁴⁵

Thus, chronic shortage of labour cases necessitated modifications in the structure of midwifery teaching by founding a new obstetric hospital or by establishing an external maternity department. It did not immediately indicate expanding professional opportunities for the Indian doctors choosing to include midwifery in their armoury of knowledge. Training the dhais continued to be the focus of midwifery education instituted at the Medical College. The objective was not to train the dhais in operative midwifery, but to teach them cleanliness and the ability to recognize abnormal labour and thereupon, promptly seek the help of the doctor. The civil surgeons in Bengal, in charge of training the dhais, were often satisfied if the latter, at the end of three months of training followed simple rules of hygiene and knew when to seek the assistance of doctor.⁴⁶ In view of the fact that the training of dhais was mainly confined to overseeing normal births, a more comprehensive idea of educating female doctors in India was increasingly felt by a section

Women in the medical professions', in *Women in Colonial India: Essays on Politics, Medicine, and Historiography* (New Delhi: Chronicle Books, 2005).

⁴⁴ WBSA, Judicial Department, Medical Branch, Progs 1-2, 5-6, October 1889.

⁴⁵ Ibid.

⁴⁶ 'Maternal and Infant Mortality-II', *The Journal of the Association of the Medical Women in India*, Vol.V, No.II, August 1916, p.20.

of medical professionals and some progressive bhadralok. However compared to the Presidencies of Madras and Bombay, the beginning of female medical education in Bengal was rather shaky and fraught with controversies.

Female Medical Education: A Step Ahead

Following Margaret Balfour and Ruth Young's influential work entitled *The work of medical women in India*,⁴⁷ scholars have focussed on the contributions of the women medical professionals in drawing Indian women into the ambit of the colonizing western medical discourse. Antoinette Burton has argued that providing medical care to Indian women 'imprisoned' in zenana was perceived as a national and an 'imperial obligation' by the British women doctors trained in the London School of Medicine for Women (LSMW). The underlying cause was however the persistent opposition faced by these female medical professionals from British medical men that largely undermined their prospects for employment in male dominated medical establishments in Britain.⁴⁸ The situation was more or less similar in the United States.⁴⁹ In the context of Bengal, Chandrika Paul has portrayed the entry of Bengali women into the western medical profession as an uneven process, dictated primarily by the individual interests of three groups: British medical women (doctors and missionaries), colonial administrators, and the male social reformers (the Brahmos). The participation of Bengali women in medical practice, according to Paul, constituted an important step towards introducing western medicine to the 'uncolonized' zenana.⁵⁰ Supriya Guha has also argued that the process of medicalization of childbirth pivoted mainly around the emergence of women medical professionals in Bengal.⁵¹ This thesis does not seek to contest the significance of the contribution of women doctors in disseminating western medical ideas in the zenana of Bengali households. It rather argues that female doctors in attempting to professionalize their sphere of action

⁴⁷ Balfour and Young, *The Work of Medical Women*.

⁴⁸ Antoinette Burton, 'Contesting the Zenana: The Mission to Make Lady Doctors for India, 1874-1885', *The Journal of British Studies*, Vol. 35, No. 3, July, 1996, pp. 368-397.

⁴⁹ Chitra Deb, *Mahila Daktar: Vin Groher Basinda*, 2nd Edition, (Calcutta: Ananda Publishers, 2010).

⁵⁰ Paul, 'The Uneasy Alliance'.

⁵¹ Guha, 'A History of the medicalization of childbirth', Introduction.

came to share the professional ethos that has usually been identified with male controlled medical structure in the West.

The idea of female medical education had its genesis in the proposal of Dr Balfour, Surgeon General of Madras in 1872. It met with initial opposition from the Madras Medical College authorities, but was eventually supported by the Principal of the College. Consequently, four European or Anglo-Indian female students were admitted in 1875. Bombay followed suit. The intervention of an American businessman, George T. Kittredge, led to the Medical Women for India Fund being established in 1880. The Fund laid the groundwork for female medical education and use of medical facilities by women and children in Bombay. In this milieu the Grant Medical College of Bombay eventually opened its door to female candidates in 1883.⁵²

In Bengal the proposal traversed a convoluted path of opposition, rejection and acceptance. The delayed response was largely due to *bhadralok* notions of respectability that led to women's economic independence being seen as a potential threat to the honour of the family. Yet the proposal for admitting women as students in the CMC was initially made by some progressive Bengalis; for the first time by Babu Neel Kamal Mitra in 1876, then by Rakhal Das Mukherjee in 1879 and finally by parents of two aspiring female candidates, Abala Das and Ellen D'Abreau in 1882.⁵³ The proposals were rejected on two grounds by the Calcutta Medical Council.⁵⁴ The first reason cited in the *Indian Medical Gazette* was the 'difficulty of introducing a serious innovation into the conservative domain of medical practice.' The second reason was the shortage of funds in promoting the comprehensive scheme of female education.⁵⁵

However, as Chandrika Paul has shown, the mediation of a section of progressive Brahmos known as the *Samadarshi Dal* and some British administrators such as Alfred Woodley Croft

⁵² Mridula Ramanna, *Health Care in Bombay Presidency, 1896-1930* (Delhi: Primus Books, 2012), Introduction, p.5.

⁵³ Abala Das and Ellen D' Abreau eventually went to Madras Medical College to pursue a career in medicine due to the initial reluctance of the Calcutta Medical Council Authorities to open the gate of medical education to females. While Abala never practised medicine later, Ellen went on to pursue MB degree in 1887. See Geraldine Forbes, 'Medicine for Women: "Lady Doctors" in the Districts of Bengal' in Forbes, *Women in Colonial India*.

⁵⁴ Balfour and Young, *The Work of Medical Women*, p.103.

⁵⁵ 'Medical Education in Lower Bengal', *The Indian Medical Gazette*, Vol.20, March 1885, pp.77-78.

(The Director of Public Instruction), Dr J.M. Coates (Principal of the CMC) and Rivers Thompson (Lieutenant Governor of Bengal) led to women being accepted in the CMC from 1883. Paul sees this as an attempt of the British administrative officials to salvage the image of Bengal Presidency and prevent it from falling behind its administrative rivals, Madras and Bombay in introducing female medical education.⁵⁶ Thus, overriding the wave of resistance from the Calcutta Medical Council, Thompson agreed to the admission of female candidates in the Medical College in June 1883. In another resolution dated 6 May 1884, Thompson reemphasized the policy of female education by offering scholarships to those female candidates who, after successfully qualifying for the First Arts Examination at the University, would be 'elected' as students at the Medical College. His endeavour was greatly bolstered by the munificence of Maharani Swarnamayi who donated a considerable sum of money to the Government of Bengal to be utilised in whichever way possible. The consequence was the construction of a hostel for the accommodation of Indian female medical students.⁵⁷ The earliest beneficiary was Kadambini Basu who was awarded the GBMC (Graduate of Bengal Medical College) in 1886.

The college authorities proposed an arrangement wherein the women students should be screened off from the male candidates. The study of anatomical details of naked human form challenged the gender hierarchy and patriarchal order which had strong resonances in the conservative British society and other parts of the world in the nineteenth century. However, women's consent to sit in 'mixed classes' with men heralded the beginning of women's entrance into the professional sphere of obstetrics and gynaecology: a fact which became evident with the foundation of the Dufferin Fund.

The Countess of Dufferin Fund was the short-hand for the 'National Association for Supplying Female Medical Aid to the Women of India' named after the Vicereine Lady Dufferin. The Fund was a landmark in the institutionalization of midwifery in India. As a semi-official effort, its origin was linked to the women's movement in Britain. It was established to provide 'medical relief to women by women, medical tuition of women and the doing of all things conducive to these objects.' It led to the establishment and expansion of an intricate network of female hospitals, dispensaries and clinics on city and district levels with branches in all major parts of India. The branches were supervised and managed by a Central

⁵⁶ Paul, 'The Uneasy Alliance', p.92.

⁵⁷ Ibid.

Committee composed of powerful Englishmen and wealthy Indian aristocrats (male and female) and presided over by the Vicereine.⁵⁸

The importance of the Fund lay in the impetus it gave to the study of midwifery in all the major provinces of colonial India. Within two years of the establishment of the Fund, the Government of Bengal ratified the recruitment of female students to the Bengali class of the Campbell Medical School for medical instruction on exactly similar lines designed for 'Civil Hospital Assistants'. However, the requirements for admission were relaxed and pushed to a lower level for the female students. The prospective female hospital assistants were trained with a view to enabling them to practise in the villages and districts of Bengal. In 1892, the standard of female professional education was raised by the Government of Bengal when it resolved to introduce University Entrance Examination as the criterion for admission and increased the period of study from three to four years for certificate classes.⁵⁹

By 1895, 24 women students were enrolled in the classes of the CMC and a further 34 of them were attending the hospital assistant class of the Campbell Medical School.⁶⁰ While the alleged discriminatory and racist nature of employment policies practised under the Fund was grudged in the Bengali press,⁶¹ the Fund operated dispensaries and hospitals in districts provided increased employment opportunities for licentiate female doctors as hospital assistants and as Geraldine Forbes has argued, aided the spread of western medical treatment into the districts of Bengal.⁶² Thus, paradoxically enough, female licentiate doctors being denied lucrative jobs in urban hospitals played a major role in popularizing western medicine in the districts.

⁵⁸ Balfour and Young, *The Work of Medical Women*, p.36.

⁵⁹ 'The Dufferin Fund' in *The Indian Medical Gazette*, Vol.27, March 1892, p.79.

⁶⁰ 'The Countess of Dufferin Fund', *The Indian Lancet*, Vol.7., 1st April, 1896, p.343. Geraldine Forbes' pioneering research reveals how some of them had longer careers than the IMS doctors. Some of them were Haimabati Sen in Hooghly district, Mussamut Idennessa in Mymensingh, Hemangini Devi at the Dufferin Hospital in Bankura, Menaka Devi at the Girish Chandra Hospital in Murshidabad, Priya Bala Guha in the Zuharunissa Female Hospital, Bogra, etc. All of them were Licentiate students between 1891 and 1894 at the Campbell Medical School. See fn 29 *List of Qualified Medical Practitioners in Bengal 1903* (Calcutta: Bengal Secretariat Press, 1903) in Forbes, 'Medicine for Women', pp.130 & 96.

⁶¹ The newspaper *Sanjivani* was particularly vocal about its criticism of the Fund's discriminatory policies.

⁶² Forbes, 'Education to Earn', pp. 112-116; Lal, 'The Politics of Gender and Medicine'.

The Dufferin Fund also took care to extend 'hospital habits' among the purdahnashin women. In order to attract more patients, concerns were voiced in the Annual Reports of the Bengal branch of the Fund regarding the increasing necessity to secure the privacy of the wards. Attention had to be paid to the 'details of cook-houses, store-rooms, arrangements for the accommodation of the friends of patients and for members of the hospital staff and establishment...Much may yet be accomplished to obtain greater privacy in existing institutions.'⁶³ The Eurasian, Christian, Jew and Armenian female population was excluded from the scope of medical treatment provided at the purdah hospitals and male civil surgeons were later barred from inspecting the purdah wards.⁶⁴ The 'secular' nature of the medical work discharged by the Fund was repeatedly asserted. Every attempt towards dissociating itself from the missionaries and the overtly religious nature of their work was prioritised and implemented.⁶⁵ Yet the attendance of Hindu purdahnashin women remained low.⁶⁶

However, at the turn of the century, the trend of women seeking western medical care in the Dufferin Fund operated hospitals escalated although the patients were not necessarily Hindu purdahnashins.⁶⁷ In the process, the line of demarcation between what constituted a Dufferin Fund operated hospital and what in reality was a female ward of a general hospital was often blurred. For instance, it was revealed in the seventeenth annual report of the Dufferin Fund in 1904 that increasing number of women and children in many parts of Lower Bengal were being treated by the Civil Surgeons in the general hospitals and dispensaries maintained by local funds rather than by the Dufferin Fund. Being assisted by female hospital assistants and dhais, the bulk of the treatment was administered by the civil surgeon. In this context, the

⁶³ 'The Bengal Branch Of The Countess of Dufferin's Fund', *The Indian Medical Gazette*, Vol.39, April 1904, p.144.

⁶⁴ Paul, 'The Uneasy Alliance', p.92.

⁶⁵ See Balfour and Young, *The Work of Medical Women*, pp.34-35; Supriya Guha, "'The best Swadeshi': Reproductive health in Bengal, 1840-1940' in Sarah Hodges ed., *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).

⁶⁶ Chandrika Paul's detailed study of the Bengal Branch of the Dufferin Fund shows that the number of Hindu purdahnashin patients remained low till 1911 while number of Muslim patients steadily went up. See Paul, 'The Uneasy Alliance', p.280.

⁶⁷ The trend of hospitalization had already accelerated within a decade of the foundation of the Fund. The Bengal branch of the Dufferin Fund report stated that 10,7,000 women were treated in Bengal in 1895 which was an increase over the previous year of about 27,000. It also referred to several new hospitals being built in the districts of Bengal. For details, see 'The Bengal Branch of the Dufferin Fund', *The Indian Lancet*, Vol.7, March, 1896, p.255. However, Chandrika Paul's detailed study showed the low attendance of Hindu middle class women. See Paul, 'The Uneasy Alliance'.

Indian Medical Gazette pointed out, 'in a score of instances, and there may be others, the work done in general hospitals in the districts is simply incorporated with that done in special Dufferin Hospitals and classed as the latter. Thus, it would seem to appear that in Lower Bengal a large number of the women and children medically treated by Government officials are regarded as relief afforded by the Dufferin Fund.'⁶⁸ While this resulted in women doctors being controlled by male civil surgeons leading to recurring resentments amongst the former, the appeal of the 'female' hospitals promising to secure the modesty of the Bengali women often drew women, some of whom were also non-purdahnashin, to such hospitals. Also the presence of Bengali female hospital assistants like Haimabati Sen, in charge of the Hooghly Dufferin Hospital and Hemangini Devi in charge of the Dufferin Victoria Hospital in Bankura contributed significantly towards attracting local female patients.⁶⁹

The female doctors, however, continued to face persistent challenges of having to compete with the male civil surgeons in the sphere of actual practice in the dispensaries and hospitals. Consequently, they sought to appropriate all those arenas of medical practice which were hitherto controlled and monopolized by male physicians. Medical women argued that, 'A medical woman who intends to work among Indian women must be *better qualified* than a man engaged in medical work out here, *not less qualified*. (Emphasis original)'⁷⁰ In the case of Bengal, it resulted in a tussle between the civil surgeons and the 'lady doctors'. One of the crucial areas of contest was surgery. The long standing taboo against women performing surgery had been one of the major considerations of the male dominated medical establishment in Bengal in allowing the civil surgeons to perform the major operations. The civil surgeons were wary of the prospects of not having 'excellent surgery' in female hospitals and the chances of losing control over the appointments of women hospital assistants.⁷¹ As Margaret Balfour stated in her account, despite women doctors sometimes 'not being personally keen on surgery', surgery was still perceived by them as a crucial way to refine medical training and enhance the status of the female

⁶⁸ 'The Bengal Branch of the Countess of Dufferin's Fund', *The Indian Medical Gazette*, Vol.38, July 1903, pp. 262-263.

⁶⁹ Forbes, 'Medicine for Women'.

⁷⁰ 'Provisional Report on the Working of the Countess of the Countess of Dufferin Fund', *The Journal of the Association of Medical Women of India*, Vol.1, No.4, Nov 1908, pp.8-12.

⁷¹ 'Provisional Report on the Working of the Countess of Dufferin Fund', p.8.

hospitals.⁷² The later reports of the Dufferin Fund testify to an increasing number of women doctors performing surgical operations. To cite an example, the report of the Bengal branch of the Dufferin Fund showed Haimabati Sen, a Hospital Assistant at the Hooghly Dufferin Hospital performing four craniotomies and seven forceps deliveries in the year 1895; the number steadily increasing in the following years with Sen being in 'sole' charge of a wide variety of 'operations' in the hospital and the out-patient clinic.⁷³ Further the Inspector General of Civil Hospitals, Bengal confirmed in August 1910 that the number of abdominal operations in Dufferin Hospital in Calcutta had gone up from 10 in 1907 to 80 in 1908 and 57 in 1909, also describing the operation room as small but 'well-equipped.'⁷⁴ It might be argued here that the presumed fear of Indians for surgery was greatly allayed by the female doctors who in wielding surgical instruments broke all taboos and popularized western medical practice.

The overbearing presence of male medical professionals continued to be perceived as a serious hindrance by the female doctors throughout the colonial period. In order to foster their professional interests, the female medical practitioners formed the Association of Medical Women in India in Bombay in 1907 with divisions established in each of the states in India. The first president of the Association, Dr Annette Benson (from the Cama Hospital Bombay) argued that the medical women in India were 'nondescript scattered members of isolated units, at the mercy of chance employment and still more chance conditions of service, and almost all in subordinate positions... we aim so to improve the conditions under which the medical women work as to make their work efficient and their reward fair.'⁷⁵ Being affiliated to the International Association of Medical Women, the Association for Medical Women in India was conceived as a focal point for the transnational exchange of knowledge, experiences and research of medical women. Soon, the Association joined hands with the Central Committee of the Dufferin Fund in making two representations to the Government of India in 1910 and 1912 petitioning the formation of a covenanted

⁷² Balfour and Young, *The Work of Medical Women*, p.45.

⁷³ Report of the Bengal Branch of the Countess of Dufferin Fund for the Year ending 30th November 1896 quoted in Forbes, 'Medicine for Women', pp.137-138.

⁷⁴ 'Copy of Remarks Made by the Inspector-General of Civil Hospitals, Bengal, on the Lady Dufferin Victoria Hospital, Calcutta, on the 13th August, 1910' *The Journal of the Association of Medical Women in India*, Vol.2, No.1, February 1911, pp.33-35.

⁷⁵ 'Association of Medical Women in India and its Fifty Years', *Journal of the Association of Medical Women In India*, Vol.XLV, No.4, November 1957, p.111.

women's medical service along the lines of the IMS.⁷⁶ The second representation succeeded and in 1913 the Government of India sanctioned the grant of an increased subsidy of Rupees one and a half lakh to the Central Committee of the Dufferin Fund that led to the foundation of the Women's Medical Service (WMS) on 1 January 1914.⁷⁷ The WMS underscored an all India basis for the organization of women's medical work in providing improved hospital services and better quality medical aid to women.

This section has outlined three cardinal themes. It has sketched the socio-cultural environment in which midwifery as a medical subject was incorporated into the curriculum of the CMC, also highlighting the scepticism that informed the attitude of the medical college authorities at every step. Secondly, it has pointed out how the cultural practice of seclusion amongst Bengali females further propelled the medical college authorities to prioritise the training of dhais and midwives as a more viable alternative to teaching the indigenous male students. However, the scope of midwife's work being limited to overseeing normal births, the idea of training female doctors gradually gained currency. Yet the rise of women medical professionals could not represent the sum total of activities pertaining to the systematization of midwifery education and crystallization of a medical discourse on the subject. Herein the role of male obstetricians and physicians comes in for a critical scrutiny. Despite the male medical professionals being undermined in the existing historiography on childbirth in India or being only referred to tangentially, the next section will analyse their centrality in the discursive constitution of midwifery as a medical discipline and its reconceptualization as the science of obstetrics in Bengal.

'Male' Doctors in the 'Female' Domain of Midwifery

In a recent work, Monica H. Green has asserted the role of men in childbirth in the West, arguing 'that they were "hiding in plain sight" more often than we suspect.'⁷⁸ Drawing upon Green's argument and expanding it further, this section argues that the role of male

⁷⁶ 'Association of Medical Women', p.112.

⁷⁷ Balfour and Young, *The Work of Medical Women*, p.50.

⁷⁸ Monica H. Green, 'Gendering the History of Women's Healthcare', *Gender and History*, Vol.20, No.3, November 2008, pp.487-518.

physicians in effecting transformations in the knowledge and practice of midwifery was of a significant nature and hence deserves closer analysis.

The inadequacy of historical research on the agency of male physicians in medicalization of childbirth in India throws open an unexplored field of enquiry. However, the lack of primary documents poses the formidable challenge of collating and reconstructing a narrative from an array of diverse and scattered sources. Thus, for analysing the nature of engagement of male physicians with the process of childbirth in Bengal, I have relied on the essays on various aspects of obstetric education and practice contributed by Indian male physicians to the *Indian Medical Gazette*. I have drawn upon non-official journals, such as the *Calcutta Medical Journal*, the *Indian Medical Record* and the *Journal of the Indian Medical Association* for outlining the nationalist leanings of the medical men.⁷⁹ I have also tried to analyse the contours of the medical discourse that crystallized around midwifery and increasingly began to feature in Bengali medical journals like *Bishak Darpan*, *Cikitsa Prakasa*, *Cikitsa Sammilani* from late nineteenth century onwards. I have also focussed on the writings of Bengali male physicians on reproductive health.

I begin with a re-evaluation of Supriya Guha's assertion that 'the obstetric revolution that had taken place in England in the eighteenth and nineteenth centuries was brought to India by mainly medical women.'⁸⁰ The term 'obstetric revolution' coined by Irvine Loudon loosely referred to the emergence of 'man-midwife' or male accoucheurs in England between 1730 and 1770, whose 'scientific proficiency' and possession of the 'forceps' not only threatened the traditional roles of midwives as birth attendants but also led to a 'reformulation of the ideological basis of midwifery.'⁸¹ Drawing upon this definition of what constituted 'obstetric revolution' there is much truth in Guha's argument about the palpable absence of a category of 'man midwife' in the early history of medicalization of childbirth in Bengal. Yet a closer analysis unfolds how the process of incorporation of midwifery into the medical curriculum of the CMC was inextricably associated with its re-

⁷⁹ Here I use the term non-official journals to mean those journals which were published by indigenous medical men out the ambit of Government jurisdiction and financial support. *Calcutta Medical Journal* was the mouthpiece of the Calcutta Medical Club which was a professional but non-governmental organization of Bengali doctors to promote the exchange of medical ideas and pursuit of research.

⁸⁰ Guha, 'A History of the medicalization of childbirth'.

⁸¹ W.R. Arney, *Power and the Profession of Obstetrics* (Chicago and London: Chicago University Press, 1982), p.25.

inscription in medical terms. The process of re-inscription was effected to a considerable extent, through the intervention of male medical practitioners.

This section will analyse two major patterns of male physicians' critical engagement with the domain of obstetrics: first, it will locate the male doctors as general practitioners within an emerging '*daktari*' culture in mid nineteenth century Bengal. It will analyse how general practitioners practising midwifery in the districts sought to appropriate western medical discourse on childbirth both in terms of learning midwifery and attending actual cases of childbirth. Second, it will evaluate the contributions of male specialists or obstetricians whose exposure to the medical education in the West endowed them with a more nuanced understanding of the discipline of obstetrics. Their contribution in modernizing obstetrics according to international standards was of critical importance in the professionalization of the discipline in Bengal.

The indigenous male physician's involvement in childbirth can be located in a new pattern of medical culture or '*daktari*' that evolved in mid nineteenth century Bengal. In a recent extensive historical work on the subject, Projit Behari Mukharji has defined *daktari* as a 'self-descriptive category' that increasingly gained currency in the 1860s and came to embody a distinctive set of practices, separate from the existing indigenous systems of medicine. *Daktari* underscored a dual process of 'provincialization' and 'vernacularization' of western medicine that was enabled by three trends: the nationalization of Ayurveda as the quintessential Hindu medical system by the Western writers in the 1830s and 1840s that led to the provincialization of allopathy as the product of the West, the gradual marginalization of Bengali Sub-Assistant Surgeon by the colonial Government after the 1860s and lastly, the opening of the Bengali licentiate class at the CMC that generated demand for Bengali books and periodicals.⁸² *Daktari* underscored the translation of European medical texts into Bengali and the creation of Bengali medical vocabulary through adoption of western medical terms. One of the central features of *Daktari* practice in Bengal, according to Mukharji, was the constant need to 'nationalise' and 'de-alienate' itself from the masses by incorporating local customs and cultural beliefs into its medical repertoire.⁸³ Mukharji has further explained how the identity and social meanings of *daktari*

⁸² Projit Bihari Mukharji, *Nationalizing the Body: Medical Market, Print and Daktari Medicine* (London: Anthem Press, 2011), p.85.

⁸³ Mukharji, *Nationalizing the Body*, pp.96-97.

were constantly contested and negotiated in the Bengali printing world, through periodicals, advertisements and drama.

This section will explicate how through the medium of vernacular medical periodicals, the daktars developed and disseminated a western scientific discourse on midwifery in Bengali language. As has been discussed in chapter one, the diffusion of a prescriptive scientific body of knowledge on midwifery was carried initially through the pages of women's journals like *Bamabodhini Patrika* from the 1860s. It reflected a certain degree of social commitment towards expurgating ignorance and irrationality from the female domain of midwifery and also formed a powerful way of spreading the gospel of modern medicine to the inner quarters of home. This section will analyse how a 'medical' view of childbirth was discursively constructed in the pages of vernacular medical journals and later dispersed through individual compositions on pregnancy and the diseases of women.

It would be useful to begin by mentioning Dr Annada Charan Khastagir's 'A Treatise on the Science and Practice of Midwifery with Diseases of Children and Women.'⁸⁴Khastagir was the Sub-Assistant Surgeon under the Indian Medical Service (IMS).The centrality of his text lay in its dual commitment to serve the needs of the 'native doctors of the Bengali class and the students of the medical schools' and to engage in meaningful dialogue with the indigenous systems of medicines by incorporating local (*desiya*) treatment within the ambit of discussion.⁸⁵Being originally written in 1868, it was one of the earliest texts that brought intricate diagrammatic and theoretical details of obstetric surgical instruments such as forceps, vectis, fillets into the scope of discussion. It also vividly illustrated and evaluated the pros and cons of important obstetric operations such as craniotomy, symphysiotomy, episiotomy, version and caesarean section. Similar treatises belonging to this genre included Khirodaprasad Chattopadhyay's *Dhatribidya* (Midwifery) and Nagendranath Sengupta's *Sochitro Daktari Siksha* (An Illustrated Treatise on Allopathic Medicine).⁸⁶Such

⁸⁴ Annada Charan Khastagir, *Manabjanmatattva, Dhatribidya, Nabaprasutosisu O Strijatirbyadhisangraha* (A Treatise on the Science and Practice of Midwifery with Diseases of Women and Children), 2nd Ed (Calcutta, 1878).

⁸⁵ Ibid.

⁸⁶ Khirodaprasad Chattopadhyay, *Dhatribidya* (A Treatise on the art of midwifery) (Calcutta: Oriental Press, 1886); Nagendranath Sengupta, *Sochitro Daktari Sikkha* (Medical Education with pictorial illustrations) 4th Edition (Calcutta: Nagendra Printing Works, 1905).

monographs continued to be published sporadically throughout the nineteenth century and signalled the existence of a well-entrenched daktari practice in Bengal.

However, it was with the publication of vernacular medical journals from the 1880s and the 1890s that regular intellectual discourse/dialogue on the medical aspects of midwifery along with other specialized branches of medical science became a possibility for the Bengali daktars trained in western medicine. In 1888, Dr Jadunath Gangopadhyay pressed the need for medical associations of Bengali medical men (in Calcutta and mufassils) and medical journals written in Bengali language as the best ways to eradicate ignorance and ensure improvement of medical knowledge amongst the Bengali physicians.⁸⁷ Arguing along similar lines, the inaugural issue of *Cikitsa Prakasa* (Health Highlights) in 1909 stated that: 'In order to excel in medical care and treatment, it is essential to acquire knowledge in various directions and subjects related to medical science...the saddest thing is that the doctors in our country being ignorant of the English language are deprived of the opportunity to acquire knowledge on various subjects. Lack of contemporary medical periodicals in Bengali language is the main reason for this constraint.'⁸⁸ The journal laid out four objectives: a) to publish important extracts from contemporary English medical journals; b) to publish important research findings of experienced medical men; c) to provide detailed description of theories of various diseases; d) detailed analysis of specific ailments.⁸⁹ As Projit Mukherji has pointed out, much of what was published in the pages of the vernacular medical journals was directly linked to the creation and consolidation of a professional identity for the Licentiate doctors in Bengal. Quite evidently therefore, the readership of these journals was usually confined to the medical community; the daktars in particular and was essentially linked to the dissemination of western medical knowledge in Bengali language amongst the teachers and students of vernacular licentiate class.

Prior to the publication of *Cikitsa Prakasa* quite a few medical periodicals such as *Cikitsa Sammilani*, *Svasthya*, *Anubikshan*, *Cikitsa Darpan* and *Bishak Darpan* had already been in circulation since the last two decades of the nineteenth century. Of these, *Bishak Darpan* which was published for the first time in the 1890s and remained in circulation for a fairly

⁸⁷ Jadunath Gangopadhyay, 'Banglar Cikitsak Samaj (The Medical World of Bengal)', *Cikitsa Sammilani*, Vol.6, April-June, 1889, pp.178-192.

⁸⁸ 'Bhoomika' (Introduction) *Cikitsa Prakasa*, Vol.1 No.1, April 1909.

⁸⁹ Ibid.

long period of time survived under the financial support of the Government. *Bishak Darpan* provided a forum for exchanging and acquiring specialized knowledge in various fields of medical science within the ambit of western system of medicine. It included important essays on midwifery as well.

By the 1890s in England, midwifery had emerged from the fringes of medical profession into one of the core aspects of medical training. In the 1880s, medical men practising in London and other suburban hospitals could boast of having 'gained our knowledge of distortions of the pelvis; we have a clearer appreciation of the condition of uterus in obstructed labour....we have gained in the more frequent and earlier use of forceps, in our safer management of the third stage of labour...in our methods of dealing with haemorrhage...in our acquaintance with puerperal eclampsia, embolism, and thrombosis.'⁹⁰The evolution of gynaecology as the necessary adjunct to obstetrics led to the further expansion of the ambit of the discipline, indicating the importance of surgery as well. This caused a section of the British obstetricians to express concerns about the abuse of the knowledge of surgery and the consequent contamination of the 'natural' process of childbirth⁹¹ reminiscent of similar anti-interventionist debates in the eighteenth century.⁹²The weight of the debate in the nineteenth century had tilted more heavily in favour of judicious medical supervision and intervention in childbirth. Such debates found resonance in the medical journals in Bengal in the late nineteenth and early twentieth century.

The essays which appeared in *Bishak Darpan* were essentially translated versions of important writings by British doctors or in certain instances, individual compositions of LMS or VLMS degree holders⁹³ who derived much of what they wrote from the writings of British

⁹⁰ J.H. Keeling, 'An Address on Modern Obstetrics', *The British Medical Journal*, Vol.2, No.1176, July 14, 1883, p.59.

⁹¹ 'The Address in the Section of Obstetrics and Gynaecology', *The British Medical Journal*, Vol.2, No.1916, (September 18, 1897), pp.726-727.

⁹² Adrian Wilson opines in his extensive study of the rise of man-midwifery in England in the eighteenth century that there was an argument against surgical intervention and 'leaving the placenta to nature'. Such argument in favour of anti-interventionism was promulgated by the famous man-midwife William Hunter. Hunter, according to Wilson, had the privilege of overseeing and attending normal birth unlike the previous generation of man-midwives who could intervene with forceps only in case of complications requiring instrumental interference. For details, see Adrian Wilson, *The Making of Man-Midwifery: Childbirth in England, 1660-1770*, (London: UCL Press, 1995) Chapter 13.

⁹³ Licentiate in Medicine and Surgery (LMS) or Vernacular Licentiate in Medicine and Surgery (VLMS) were

medical professionals. The predominant focus of the writings was on the pathological aspects of labour and post-pregnancy maladies such as placenta praevia, post-partum haemorrhage, puerperal fever, etc. The central point of emphasis was, however, the need for 'discreet' use of modern methods of treatment available to the practitioners of midwifery, cautions being made against 'meddlesome midwifery'.⁹⁴ 'Puerperal Fever' known in Bengal as '*Sutikajor*' is a case in point. At a time when puerperal fever constituted the most menacing threat to the women giving birth in England and was considered the 'plague which haunts the whole domain of midwifery',⁹⁵ conflicting ideas regarding the origin of the disease that were intensely debated in England found resonance in the writings of Bengali medical men. The new notion was that the disease was a form of 'obstetric poisoning' either caused by pus formation within the body or introduced from outside by the unskilled surgeon's 'careless surgical dressing' or the midwife's unclean hands. Such ideas trickled down to the pages of Bengali medical journals that also acknowledged hospitals as the point of origin of puerperal fever.⁹⁶ An essay entitled 'Duties towards a parturient woman' written by a Licentiate doctor, Rameshchandra Roy spelt out certain measures to combat puerperal fever such as 'surgical cleanliness', the need to maintain antiseptic conditions throughout the three stages of labour and also the need to avoid 'douching'. Roy also critiqued the 'unhygienic' conditions of birth in Bengali homes, considering it as one of the chief causes for puerperal fever.⁹⁷ Explicit connections between 'unhygienic' *sutikaghar* and puerperal fever were also made in the women's magazines at the turn of the century.⁹⁸

Medical degrees conferred by the Calcutta University and other universities in British India. It was equivalent to the M.B degree and of the same duration of five years but the curriculum of the latter (i.e. M.B) was larger. The licentiate degree holders occupied subordinate positions in the government medical services.

⁹⁴ John W. Byers, '*Prasabante ShonitSraab Nibaron Ebong tahar Cikitsa*' *Bishak Darpan*, Vol.10.No.10, October 1900, pp.417-429. This essay was a Bengali translation of John W. Byer's presentation at the 68th annual symposium of the British Medical Association in 1900.

⁹⁵ Keeling, 'An Address on Modern Obstetrics', p.58.

⁹⁶ Pulinchandra Sanyal, '*Sutikar-Tarunjworba Prasutir Pochajwar*(Puerperal Septicemia)', *Cikitsa-Sammilani*, Vol.5, 1889, pp.114-119 & 227-229.

⁹⁷ Rameshchandra Roy, '*Prasutir Proti Kartabya*' (Duty towards a parturient women) *Bishak Darpan*, Vol.15, No.11, November 1905, pp.423-425.

⁹⁸ '*Sutikagriha*', *Antahpur*, Vol.5, No.7, 1903, p.135; '*SwargataKusumkumari* (Late Kusumkumari)', *Mahila*, Vol.3, No.1, August 1897, pp.21-22.

Cikitsa Prakasa published individual accounts of indigenous male physicians serving in the districts of Bengal under the title of '*Cikitsitorogirbiboron*' (Description of a treated patient). It is interesting to note how the indigenous doctors claimed the superiority and 'proven effectiveness' of the allopathic line of treatment over the indigenous methods. One of them posted in Rangilabad Hooghly (a district in Bengal) described his intervention as being extremely timely in saving the life of a woman stuck with a dead foetus for three days. He denounced the damage caused by the unskilled midwife and the irrational folk treatment of 'warding off evil spirit,' and claimed his remedies (the allopathic medicines he administered) to be crucial in bringing her back to life.⁹⁹

At the turn of the century, another distinct genre of medical writings which had been in vogue in the 1860s and 1870s gained renewed prominence. These were essentially individual compositions on scientific midwifery by licentiate male doctors directed at midwives and also often at the middle class women. Despite having technological components and clear-cut scientific perspectives, these tracts were written in lucid Bengali in order to attract popular readership. For instance, Abhaya Kumar Sarkar's '*Prasuti paricharya o sisu palan*' (Treatment of the pregnant woman and infant rearing) was published with the objective of instructing the dhais in the training centres located in the districts of Bengal and also to enlighten the middle class women; the newly married women and the elderly housewives on scientific details of labour and childbearing. According to the Health Officer of the Calcutta Corporation, the book was of great value to the middle class women who wished to know more about midwifery 'for the sake of their own health.'¹⁰⁰ It was lucid enough for the use of half-educated village women as well.¹⁰¹ The book was showered with praises by the medical fraternity and the nationalist press. *Amrita Bazar Patrika* evaluated its importance 'in the light of the valuable information it furnishes its readers about fundamental principles of Obstetrics and Gynaecology, so far as these principles can be explained in Bengali language.'¹⁰²

⁹⁹ Dr Nagendranath Roy, '*Cikitsitorogir Biboron: Prasab Durghatana* (Description of a Patient Treated: Accidents in Labour)', *Cikitsa Prakasa*, Vol.7, No.3, July 1915, pp.346-352.

¹⁰⁰ Abhaykumar Sarkar, '*Prasutiparicharya o sisu palan*' (Treatment of the pregnant woman and infant rearing) (Calcutta: The Calcutta Publishers, 1937), p.13.

¹⁰¹ Sarkar, *Prasutiparicharya*, p.17.

¹⁰² Sarkar, *Prasutiparicharya*, pp.22-23.

Similarly, Devendranatha Roy's '*Garhasthya Svasthyaraksha o sochitro dhatrisiksha*' (Domestic Hygiene and Illustrated Guide to Midwifery) published in 1904 was a detailed attempt to propagate revised scientific rules related to childbirth and prescribed interventionist approach in conducting complicated labour. Roy was a Licentiate doctor and having served as a teacher of medical jurisprudence and hygiene at the Campbell Medical School and also having already written a book on the subject, '*Sochitro Dhatrisiksha*' was his second important composition. Written in the form of a dialogue between the master and the pupil *Sochitro Dhatrisiksha* chose to convey the most baffling aspects of the subject in a lucid and intelligible manner.¹⁰³ Such genre of easily readable medical tracts and monographs on reproductive health and childbirth continued to proliferate reaching its peak in the 1930s.¹⁰⁴

The Bengali tracts on midwifery often merged with the writings on gynaecological ailments usually published under the title of '*Stri Cikitsa*' (treatment of females) which were intended for 'home' use.¹⁰⁵ In certain instances, other existing medical discourses such as homeopathy and Ayurveda on midwifery and diseases of women found their way into this genre of medical writings. For instance, in the homeopathic reproductive manual entitled '*Stri Cikitsa*' (treatment of women) the author Radha Raman Sarkar's advocacy of homeopathy over allopathic system of medicine was founded on a comparison of 'simple', 'non-surgical' homeopathic remedies with the presumed complexities of the allopathic mode of treatment based on frequent recourse to forceps application and craniotomy.¹⁰⁶ Similarly, Ayurveda

¹⁰³ Devendranath Roy, *Garhasthya Svasthyaraksha o sochitro dhatrisiksha* (Domestic Hygiene and Guide to Bengali Midwives) (Calcutta: S.K. Lahiri & Co, 1904).

¹⁰⁴ Similarly, Kalikinkar Bhattacharya's monograph on 'The Science of Obstetrics' written in Bengali was dedicated to the education of midwives and female health visitors in the villages of Bengal. See, Kalikinkar Bhattacharya, *Prasaba-Vijnana* (A Treatise on Obstetrics) (Calcutta: U.N.Dhar & Co, 1936). Sundari Mohan Das, who was the professor of midwifery and the Principal of the 'Jatiya Ayurvigyan Vidyalaya', wrote an extensive tract on midwifery and infant welfare by omitting 'some discarded views' and substituting them with 'modern views.' Sundari Mohan Das, *Saral Dhatri-Siksa, Kumar Tantra O Stri-Rog* (A Treatise on Midwifery, Infant -rearing and Female Diseases) (Calcutta: Premananda Das and Jogananda Das, 1940), Preface.

¹⁰⁵ Some of the tracts on the gynaecological ailments of women were for instance, Harinarayan Bandopadhyay, *Strirogbidhayak* (The Diseases of Women-Medical and Surgical-with Special Reference to Indian Diseases) 2nd ed., (Calcutta, 1896); Nityananda Sinha, *Saphala Stri Cikitsa* (A Treatise on the Treatment of Diseases of Women) (Audulbaria: Dr Dhirendranath Halder, 1915); Kiranchandra Ghosh, *Stri-Cikitsa* (A Treatise on the Diseases of Women and Gynaecology) (Calcutta, 1922).

¹⁰⁶ Radha Raman Biswas, *Garbhini o Prasuti Cikitsa* (Treatment of Pregnant Woman and Infant), (Calcutta:

tracts on midwifery and gynaecology made claims about healing women's diseases by keeping with indigenous traditions.¹⁰⁷ Such competing medical discourses which jostled with each other indicated the struggle of the male physicians to penetrate the zenana through printed words.

However, the sphere of activities of the daktar was circumscribed by lack of original research, being mostly based on inherited knowledge from the West. Also the practice being confined to district dispensaries, the scope for experimenting with the more advanced form of operative obstetrics such as caesarean section and other newly evolved techniques from the West was limited. Herein the role of specialists or obstetricians as opposed to the more local and less qualified general practitioner or daktars demands closer historical focus.

Locating the Obstetricians

This sub-section will focus on the emergence of a class of male 'obstetricians' whose specialization in the field of obstetrics and appointment as professors of midwifery underscored the beginning of an enduring engagement with improving education and with broadening the ambit of clinical-scientific research in the 'tropical' specificities of midwifery. Moreover, the association of these 'specialists' with Calcutta based major teaching hospitals and medical schools put them in possession of key organizational resources. I begin the discussion by briefly delineating the career of Dr Kedarnath Das who was referred to by the *Amrita Bazar Patrika* as a great obstetrician, a 'gifted physician and a profound scholar in medical science' in India.¹⁰⁸

Walker Homeo Hall, 1938). There were other homeopathic tracts like Mahendranath Ghosh, *Saudaminira Dhatrisiksa Evam Garbhini o Prasuti Cikitsa* (A Work on Midwifery and Homeopathic Gynaecology) (Calcutta: The Author, 1909) and Kisorimohan Ghosh, *Garbhini Cikitsa* (Homeopathic Treatment In Pregnancy) (Deoghar: The Criterion, 1914).

¹⁰⁷ For instance, Harimohan Dasgupta, *Ayurvediya Dhatrividyā Samgraha* (A Compilation of Ayurvedic Midwifery) (Berhampur, 1917). Also see Binod Bihari Rai, *Ayurved Mote Sisupalan* (Infant Rearing according to Ayurveda) (Rajshahi: Binod Press, 1891).

¹⁰⁸ See, 'Dr Kedar Das No More: Great Obstetrician' *The Amrita Bazar Patrika*, March 4, 1936. Apart from Kedarnath Das in Bengal, other renowned male obstetricians of the period who flourished in other parts of India at around the same time were Dr A.L. Mudaliar (Madras), Dr N.A. Purandare (Bombay), Dr V.N. Shirodkar (Bombay) etc. For details see, Helaine Selin, *Encyclopaedia of the History of Science, Technology and Medicine in Non-Western Cultures* (The Netherlands: Kluwer Academic Publishers, 1997), Vol.1, pp.95-96.

On Kedarnath Das's death in 1936, his colleague V.B. Green-Armytage summed up his accomplishments in the following words, 'Kedarnath Das was India's greatest obstetric guru, for he was the first Indian to call attention to the need of Western methods for stemming its dreadful maternal and infantile mortality; and this he did on the platform and in books and journals for forty years.'¹⁰⁹ Das graduated from the CMC in 1892 and also acquired an M.D. degree from Madras in 1895. Beginning with the position of Medical and Surgical registrar at the Medical College, he moved to become a teacher at Campbell Medical School in Sealdah which placed him on the list of Civil Assistant Surgeons. Das's position put him in charge of major obstetrics operations.¹¹⁰ He ended up becoming the professor of obstetrics and gynaecology and the principal of the Carmichael College in 1922. He held key administrative positions as the dean of the Faculty of Medicine at the Calcutta University, as a member of the Bengal Council of Medical Registration and even as part of the governing body of the State Medical Faculty of Bengal. He also enjoyed the privileged membership of the American Association of Obstetricians, Gynaecologists and Abdominal Surgeons and the Foundation Fellowship of the British College of Obstetricians and Gynaecologists. He was granted a knighthood in 1933.¹¹¹

Kedarnath Das's claim to fame, as evident in the designations he held and the membership of the associations he enjoyed, lay chiefly in the way he redefined midwifery in the language of surgery. Das's use of forceps as one of the linchpins of modern midwifery led him to compose what has been acknowledged as his greatest work entitled *Obstetric Forceps: Its History and Evolution* published in 1928. Being a product of twelve years of fruitful research, *Obstetric Forceps* was grounded in his conviction that forceps was a 'noble and beneficent instrument, rescuing more lives and cutting short more pains than all other instruments in the professional armamentarium.'¹¹² Prior to this, Das found out by pelvimetry (measurement of the pelvis) that the pelvis of the Bengali woman was much smaller than those of the British woman. The small size of the pelvis along with the fact that Bengali women conceived at a relatively young age owing to the deep-rooted social custom of child marriage, made the use

¹⁰⁹ 'Sir Kedarnath Das, C.I.E., M.D', *The British Medical Journal*, April 1936, pp.670-671.

¹¹⁰ NAI, GOI, Home Department, Medical Branch, A, Progs No.114, April 1900.

¹¹¹ 'Sir Kedarnath Das, C.I.E., M.D'.

¹¹² Kedarnath Das, *Obstetric Forceps: Its History and Evolution* (Calcutta: The Art Press, 1928), see the Prefatory Notes.

of forceps manufactured according to British standards, both inappropriate and fatal upon the women of Bengal. This prompted Das to modify the ordinary Simpson type of forceps so as to make it 'fit' for use in Bengali women. The result was the remodelled 'Bengal Forceps' testified by him to be in great use since 1913 by himself and other Bengali practitioners. It was claimed to be 'more useful and less harmful in Bengali women than the other usual types obtainable at the surgical instrument makers' shop.'¹¹³ In the process, the 'noble' and 'beneficent' aspects of the instrument were successfully retained.

Prior to Das's work, detailed description of forceps is also to be found, as mentioned before, in Annada Charan Khastagir's 'A Treatise on the Science and Practice of Midwifery with Diseases of Children and Women' and in other such stray monographs published in the 1860s and 1870s. None of them indicated however the incidence of forceps delivery in Bengal or the extent of its popularity amongst the middle class. The Annual reports of the Bengal branch of the Dufferin Fund from the 1890s onwards, point towards forceps delivery by the civil surgeons and the women hospital assistants in the district hospitals of Bengal. By the 1920s, forceps was popularly perceived as an instrument designed to relieve women from the pangs of prolonged labour. As one doctor stated, one of the reasons behind the high incidence of forceps in Calcutta hospitals was the implorings of the patient and her 'oversympathetic relations' to the surgeon or the midwife in attendance that labour be terminated by the use of forceps.¹¹⁴

Following Das, debates on the place of forceps in obstetrics continued to figure in indigenous medical circles.¹¹⁵ Other individual compositions by Bengali doctors in the 1930s and 1940s however sought to relegate the use of forceps to the 'specialized' professional domain deeming it as a 'safe instrument, in the hands of a skilful accoucheur....a dangerous weapon in the hands of a person who is not accustomed to its proper use.'¹¹⁶

¹¹³ Kedarnath Das, 'The Bengal Forceps: A Modified Obstetric Forceps For Use in Bengali Women', *The Indian Medical Gazette*, Vol.55, January 1923.

¹¹⁴ Chuni Lal Mukherjee, 'The Place of Forceps in Obstetrics' *Calcutta Medical Journal*, Vol.36, No.5, Nov.1939, pp.316-333.

¹¹⁵ Bibhuti Bhushan Bhattacharya, 'The Future Obstetrical Forceps', *Calcutta Medical Journal*, Vol.19, No.3, Sept 1924, pp.110-115.

¹¹⁶ Mukherjee, 'The Place of Forceps', p.333.

In the era of nationalism, Das even tried to establish the 'Hindu' roots of surgery in order to repudiate its western origin. He asserted that 'one may reasonably observe that Indian medicine was in possession of an imposing treasure of empirical knowledge and technical achievement....surgery constituted the summit of attainment of Indian medicine and Hindu practitioners were accustomed to perform difficult operations with boldness and skill.'¹¹⁷ Also as a professor of midwifery, he sought to improve the standards of education in midwifery through writing two prominent and popular instructive manuals entitled *A Handbook of Obstetrics* (1914) and *A textbook of Midwifery* (1920) for the use of medically trained doctors.¹¹⁸

Das's contribution to obstetrics, therefore, lay in his effort to adapt western medical ideas to local Bengali conditions. There were still other Bengali male obstetricians who sought to modernize and technologize the sphere of Indian midwifery through emulation of western techniques, but also linked such techniques to certain aspects of past 'Hindu' medical practices in order to ensure greater acceptability. To cite an example, J.M. Das the resident surgeon in the Eden Hospital and also the officiating teacher of midwifery at the Campbell Medical School, undertook an experiment in 1917 on patients admitted to the Eden Hospital. He experimented with the use of 'scopolamine and morphine narcosis' -- the scientific term for 'twilight sleep' -- on fifty patients (including Europeans and Bengalis) with the 'most gratifying results.'¹¹⁹ These drugs which were intended to be deployed as anaesthetics for alleviating pain in childbirth were opposed in the press in Bengal. The controversy caused great inconvenience to the surgeons and medical staff in the Eden Hospital.¹²⁰ However, Das

¹¹⁷ Kedarnath Das, 'Midwifery in India', *Indian Medical Record*, Vol.44, February, 1924, p.42.

¹¹⁸ Kedarnath Das, *A Handbook of Obstetrics for Students in India* (London:Butterworth, 1914); *A Text Book of Midwifery for Medical Schools and Colleges in India*, 2nd Edition (Calcutta: Thacker, Spink & Co, 1926).

¹¹⁹ Scopolamine and Morphine was a form of obstetric anaesthesia that was discovered in the wake of the discovery of surgical anaesthesia. The use of scopolamine and morphine was systematized by Dr. Gauss under the supervision of Dr. Kronig in Freiburg, Germany in the first decade of the twentieth century. The condition was named as 'Dammerschalf' by Gauss. The English renaming of 'Dammerschalf' as 'twilight sleep' became more popular. For details see, R.C.B, 'The Search For Painless ChildBirth', *The British Medical Journal*, Vol.1, No.2842, June 1915, pp. 1052-1053.

¹²⁰ The Twilight Sleep experiment which relieved women of the pains of childbirth became popular with the middle class women in America. Newspapers and magazines supported the middle class women's cry for greater application of scopolamine in childbirth by the medical profession. It grew into a national movement. However, many American doctors opposed the use of scopolamine as a 'pseudo-scientific rubbish' and as something capable of causing harm to the mother or child. For details, see, Judith Walzer Leavitt, 'Birthing and Anaesthesia: The Debate Over Twilight Sleep', *Signs*, Vol.6, No.1, Autumn 1980, pp.147-164. In the Indian context, it's difficult to gauge the response of Indian or Bengali women to the 'twilight sleep' controversy of 1916 and 1917 as the feminist consciousness had not yet consolidated on an organizational

argued in favour of 'twilight sleep' by stating: 'Attempts to relieve the pains of labour date back to antiquity. In the dim past we find that the Hindoos used to exorcise the pangs of motherhood by means of the vapour of charcoal which had the effect of stupefying the senses...if surgeons will not permit their patients to suffer during an operation why should not an obstetrician mitigate the sufferings of childbirth taking the necessary precautions that no ill effects come to the mother or to the child?'¹²¹ The advocacy of the use of scopolamine and morphine in childbirth could also possibly have emanated from the professional concerns to intensify control over the birthing process by drawing women within the hospital structure that enabled the use of such anaesthetics and offering more to women in labour than the dhai or midwife could.

In the twentieth century, the discovery and deployment of the techniques of blood transfusion (1906) and chemotherapy aided the expansion of the technological and operative domain of obstetrics in England and America. Echoes of such developments came to redefine the priorities of the burgeoning medical profession in Bengal. The spotlight was now on experimenting with advanced techniques of surgery in obstetrics. The reason cited was the need to curb maternal and foetal mortality. In fact, medical profession's expansion in India was premised upon experimenting with upgraded medical and technological accomplishments in other countries and applying them to indigenous situations. In this context, the minister in charge of Local Self Government (Medical Department) Bijoy Krishna Singh Roy argued that one of the goals of training officers of the Bengal Medical Service abroad was 'to enable them to acquire first-hand knowledge of the latest developments in the art and science of medicine, including medical education, in Western countries and to acquaint themselves with the latest methods of dealing with hospital work and medical relief in general and the problems appertaining thereto as practised in Western countries.'¹²²

level prior to the 1920s.

¹²¹ J.M. Das, 'Scopolamine and Morphine Narcosis in Child-Birth', *The Calcutta Medical Journal*, Vol.15, Issue11, November, 1918, p.53. Other prominent obstetricians like V.B. Green Armytage also supported the use of Twilight Sleep and were claimed to have achieved 'excellent results'. For details also see, Cecil Webb Johnson, 'A Plea For Painless Childbirth in India', *The Indian Medical Gazette*, Vol.52, September, 1917, pp.311-312.

¹²² 'Council Proceedings: Official Report' *Bengal Legislative Council*, Forty-Ninth Session 1936 (Alipore, Bengal: Bengal Government Press, 1936).

Of all the evolved techniques of obstetric surgery, caesarean section came in for a lot of critical analysis in the pages of the Indian medical journals from the second decade of the twentieth century. In the 1920s, Bengali doctors felt that C-section was 'an operation which is having an ever widening application in the complications of pregnancy, and should and undoubtedly before long will replace many of the complicated and risky manipulations at present practised.'¹²³ Being consigned to the domain of the specialists, it was considered an intricate operation calling for 'unquestionable operative abilities' and 'good obstetric judgment' which the general practitioner lacked.¹²⁴ Towards the end of the 1920s, the more advanced techniques of C-Section evolved in America and elsewhere and made inroads into the medical vocabulary of obstetric practice in Bengal. Thus, V.B. Green Armytage, the professor of midwifery at the Eden Hospital urged the importance of lower segment Caesarean Section developed by Professor De Lee in Chicago. He advised the female hospitals entirely staffed by women doctors to learn the technique. He testified to 75 cases of lower-uterine segment caesarean section being personally performed by him from 1927 to 1931 at the Eden Hospital, apart from there being 163 instances of the same operation conducted in the same institution with very little maternal and foetal mortality.¹²⁵ M.V. Webb, a female superintendent in charge of the Victoria Zenana Hospital in Hyderabad, testified to the growing popularity of surgical intervention in obstetric practice throughout the country since the first decade of the twentieth century. The factors enabling greater surgical intervention, according to Webb, were the 'greater confidence' of people in surgery, the 'increased ease of transport' and lastly, the 'increased confidence of the surgeons' in endorsing surgical interventions as the 'safest' mode of delivery.¹²⁶

By the 1930s, male obstetricians had made significant inroads into the professionalized domain of midwifery both in terms of the research attempted and also in applying improved

¹²³ J.M. Das, 'Obstetric Impression', *The Indian Medical Gazette*, Vol.55, 1923.

¹²⁴ Ibid.

¹²⁵ V.B. Green Armytage, 'A Plea For the Lower Uterine Segment Caesarean Section', *The Indian Medical Gazette*, Vol.66, April 1931. V.B. Armytage also authored an extremely important book entitled '*A Textbook of Midwifery in the Tropics*' which was considered a product of his long experience as the professor of midwifery which 'fitted him to write a book dealing with midwifery as modified by racial and climatic conditions...and gauge the value of those lines of treatment most applicable to the East, particularly India.' See, 'Book Review' *Indian Medical Gazette*, Vol.68, March 1933, p.174.

¹²⁶ M.V. Webb, 'Surgical Intervention in Obstetric Practice', *The Journal of the Association of the Medical Women of India*, Vol.25, No.4, November 1937, pp.5-10.

techniques learnt from the West to the Bengali conditions. In promoting advanced operative techniques like C-Section and in pleading for non-operative experimental measures like 'twilight sleep', the Bengali doctors were voicing the need to upgrade obstetrics and fortify its scientific foundations in keeping with international standards. In the 1930s, new teaching hospitals such as the Carmichael Medical College were established apart from several medical schools in Calcutta and in the districts of Jalpaiguri, Burdwan, Bankura, Dacca, Mymensingh and Chittagong, all imparting training in midwifery. Nevertheless, as the last section will show, the practical training in midwifery for the male students continued to pose a serious challenge for the existing pedagogic framework of the Calcutta University. The difficulty of practical training fuelled by the paucity of labour cases led to the withdrawal of recognition of Indian medical degrees by the GMC of the United Kingdom in 1924. The issue, as the last section will demonstrate, had a profound impact on the consolidation of nationalist sentiments amongst the male doctors.

Midwifery and Nationalism

The medical degrees of the Calcutta University ceased to be recognized on the 30th November 1924 under a resolution of the General Council of Medical Education and Registration (GMC) of the United Kingdom. The unsatisfactory nature of training in midwifery imparted at the Indian Universities was cited as one of the major reasons behind the decision. Consequently, persons obtaining M.B. (Bachelor of Medicine) degrees after 30th November 1924 would not only cease to be entitled to registration for the 'Colonial List of Medical Registers' but also be debarred from obtaining higher qualifications in the United Kingdom. Already in 1920, the authorities of the Calcutta University were informed that unless adequate measures were adopted in bringing the training up to 'the requisite standard by a fixed date, Calcutta University medical qualifications would cease to be registrable in the United Kingdom.'¹²⁷ Lieutenant Colonel Needham was appointed by the Medical Council as the Official Inspector. He was however, refused permission by the Vice-Chancellor of the Calcutta University and the Syndicate to inspect the M.B. examinations. Based on Needham's reports on what happened, the GMC terminated the

¹²⁷ WBSA, Government of Bengal, Local Self Government, Medical Branch, Progs No.21-48, File 2M-13, December 1926.

recognition of the medical degrees of the Calcutta University in 1924, while it continued to recognize degrees of other Indian universities until 1930.

On a broader level, the central point of the Medical Council's threat to the Indian Universities lay chiefly in the way it afforded opportunities for the members of the IMS to retain control over the medical colleges. As Roger Jeffery has aptly argued, it also enabled the IMS to 'reduce the number of students admitted, toughen up the conditions for passing examinations, retain more of the lucrative medical college jobs than they might otherwise have done, and control ministers who wanted to change the pattern of medical education in their provinces.'¹²⁸ The insistence of the Medical Council on the importance of 'practical training' in midwifery education including the personal supervision of twenty labour cases by each student, evoked mixed reactions amongst medical men in different provinces. The Universities of Lucknow, Lahore and Burma responded by sending the fourth year students to the Government Maternity Hospital, Madras, for one month of training as intern students in order to provide them with facilities for observing obstetric operations and personally handling labour cases. In the case of Bengal, however, while the response of the Principal of the CMC and the other IMS officials was to placate the Council, the reaction of the indigenous medical men was more of a defensive and nationalistic nature.

Lieutenant Colonel F.A.F. Barnardo, Principal of the CMC responded to the demands of the GMC by suggesting the establishment of an 'extern clinic'. He argued that the extern clinic would persuade more patients, mostly Anglo-Indian and poor women with little inhibitions, to avail themselves of attendance by male doctors. He also outlined three alternatives. In view of the intensive training in midwifery delivered in Bengal colleges for three years instead of one year in the British colleges, the Medical Council could be requested to accept six labour cases for individual training of students instead of the stipulated number of twenty. The second alternative could be to ask the Council to defer their decision to reject Indian degrees from February 1922 to February 1924. As a third option, he proposed the creation of a degree of the Bachelor of Obstetrics by the University of Calcutta which would be recognized by the Council.¹²⁹ The solution proposed by Barnardo reflected a

¹²⁸ Roger Jeffery, *The Politics of Health in India* (Berkeley and Los Angeles: University of California Press, 1988), p.85.

¹²⁹ WBSA, Government of Bengal, Local Self-Government Department, Medical Branch, Progs. 7-22, File 3M-3, June 1922.

conciliatory approach and also highlighted the fact that recognition by the Medical Council of Indian degrees was essential for the future of medical graduates in India.

On the other hand, the Bengali medical men's response was palpably of a defensive nature heavily tinged with nationalist sentiment. M.N. Banerjee, the Principal of the Carmichael Medical College, defended the pedagogic infrastructure of the institution as one that was being constantly overhauled to meet the demands of the Medical Council and hence, quite efficient. Also considering practical instructions to students in all labour cases as being adequate at the college, Banerjee commented that, 'students are not allowed to attend cases- "somehow" as in extern maternities, neither are they allowed to attend cases merely to be "signed up."'¹³⁰ Dr Kedarnath Das too retorted, stating clearly before the Annual Conference of the Indian Provincial Medical Services Association in 1921 that the medical education in India was quite adequate.¹³¹ The Registrar of the Calcutta University, J.L. Ghosh, argued that the existing clinical materials at the disposal of the students and the tenure of three years for the teaching of midwifery were far better than many medical schools in the United Kingdom.¹³² Previously, Kedarnath Das had challenged the statements and statistics of IMS officers who had submitted written statement to the Public Services Commission in 1913 about 'defective midwifery training.'¹³³

The debate which crystallized around 'defective' midwifery training eventually led to a sense of yearning for independence from the strictures of colonial control over medical education in India. The editorial in the *Calcutta Medical Journal* commented, 'The supervision over the medical institutions in India is done by the University and recently by the Bengal Council of Medical Registration. Neither the Privy Council therefore, nor the General Council can have any direct authority over the Calcutta University in as much as the Calcutta University can exercise no authority over the institutions in the United Kingdom.'¹³⁴

¹³⁰ Ibid.

¹³¹ 'Problem of Midwifery Training in Indian Medical Colleges' *Calcutta Medical Journal*, Vol.19, No.4, October 1924,p.160.

¹³² WBSA, Government of Bengal, Local Self-Government Department, Medical Branch, Progs. 7-22, File 3M-3, June 1922.

¹³³ 'Problem of Midwifery Training', p.158.

¹³⁴ 'Editorial', *Calcutta Medical Journal*, Vol.19, No.3, Sept, 1924, p.131.

In a similar vein, at the third All India Medical Conference held in Lahore on 28 December 1929, Dr Bidhan Chandra Roy condemned the decision of the Medical Council to appoint an inspector, asserting that 'We do not want an inspector sent by the GMC. But we desire the fullest enquiry by *ourselves* into the methods of teaching in the different universities....we want to raise ourselves in *our* own estimation and the world is bound to respect us in spite of the detractors.'¹³⁵ One of his professed goals was to develop 'medical education in *our own* way (emphasis mine).'¹³⁶ In a similar vein, another prominent medical man condemned the craze for foreign degrees as a 'morbid expression of a slave mentality' and insisted on modifying the teaching of the Indian universities to suit international standards.¹³⁷ The nationalist resentment over GMC's action did not however stand in the way of medical colleges in Bengal making attempts to revitalize the structure of midwifery training by appointing more staff or getting the students to observe labour cases at the Calcutta Corporation run maternity homes and the Visuddhananda Saraswati Marwari Hospital.

Conclusion

This chapter has outlined the various stages through which midwifery was institutionalized and transformed into a medical discipline in Bengal. Instead of uncritically assuming the centrality of female physicians in the process of medicalization of childbirth, it has analysed the agency of male physicians not in terms of the extent of their accessibility to the upper-caste purdah women but in sustaining the structure of midwifery education and broadening the scope of surgical obstetrics in Bengal. In other words, the chapter has demonstrated that the contribution of male doctors was more at a discursive level than in the realm of actual practice.

In the decades following the GMC's withdrawal of recognition of Indian university degrees, the demand for medical '*swaraj*'(independence) consolidated. At the same time, the nationalist overtones of the indigenous medical men continued to resonate more strongly in the field of maternity and child welfare work. The next chapter will explain how medical

¹³⁵ 'Medical News : All India Medical Conference', *Calcutta Medical Journal*, Vol.24, No.7, January 1930, p.302.

¹³⁶ Ibid.

¹³⁷ A.C. Ukil, 'The Teaching of Medicine in the Calcutta University', *The Calcutta Medical Journal*, Vol.XIX, No.4, October 1924, p.148.

professionals assumed the responsibility of popularising scientific midwifery that got entangled into a wider emotional debate on maternal and infant welfare in the nationalist era of the late colonial period.

Chapter Three

Maternal and Child Welfare: A Nationalist Concern in Late Colonial Bengal, 1900-1940s

In an essay submitted to the Madras press in 1927 Dr Muthulakshmi Reddy, an eminent local woman physician pithily summed up the significance of the child welfare movement. Based on her first-hand experience of the movement in European countries in the 1920s, she stated,

Child-welfare work is of such a wide national concern that it ought to interest not only the proper health authorities and the Medical profession, but also the State, the statesman, the patriot and the lay-public, because the child of today is the patriot of tomorrow. If we want our future generation of young men to command a robust physique and a healthy intellect, the health training ought to commence even from the very beginning of life, from the movement of the conception in the mother's womb.¹

This chapter will consider the maternal and infant welfare discourse that acquired prominence in Bengal in the inter-war years. It will explore how maternal and infant welfare discourse provided ideological justification for bringing pregnancy and childbirth under medical supervision to fulfil the broader nationalist objective of promoting the healthy growth of the nation. It will show that the dual engagement of Bengali medical professionals with the nationalist rhetoric of motherhood and the global eugenic concern for better racial stock provided the rationale for 'expert medical control, developing, co-ordinating and directing all effort, voluntary and official, towards the one common goal of robust individual health and racial improvement.'² Preserving the life of the expectant mother and the child as the basis of a healthy nation was cited by the medical profession as a reason strong enough for the 'medical men and women' to 'share the burden as a joint responsibility' and to organize themselves and 'combine to uplift the condition of the expectant mothers' and also to 'educate our friends, and neighbours about the necessity of their womenfolk and children being examined by doctors.'³

¹ Quoted in P.G. Thomas, 'The National Health and Baby Week: Its Importance and the Reasons why we should help it', *The Calcutta Municipal Gazette*, May 1927, p.57.

² 'Maternity and Child Welfare in India', *Calcutta Medical Journal*, Vol.32, No.8, August 1937, p.392.

³ 'Medical Profession and Maternal and Child Welfare', *Calcutta Medical Journal*, Vol.41, No.6, June 1944, p.198.

In the existing historiography, the origin of the infant welfare movement as an organized and systematic movement in western countries is traced to the years following the First World War. From the end of the nineteenth century, the declining birth rate had begun to provoke public interest in the need to prevent wastage of infant life in England and other European countries. This led to medical probes into the causes of infant mortality and resulted in investigative research being conducted by eminent medical men like Dr Longstaffin 1880, Dr Ballard in 1887 and Dr Newsholme in 1889. As both Jane Lewis and Anna Davin have argued, the massive loss of life during the Anglo-South African (Boer) War (1899-1902) triggered grave concerns about the deteriorating national standards of physical health. Infant welfare conferences were held in Paris (1905), Brussels (1907), London (1908) and Berlin (1911). In England laws were passed in the hope of improving conditions of childbirth including the Midwives Act of 1902 and the Children's Act of 1908. Voluntary societies such as Infants' Health Society (1904), the National League for Health, Maternity and Child Welfare (1905), Eugenics Education Society (1908), etcetera sprang up for promoting public health awareness among the masses.⁴ Equally significant was the intervention of municipal authorities in launching cheap milk supply schemes and organizing conferences on infant mortality in 1906 and 1908. However, it was the outbreak of the First World War (1914-18) that sharpened public anxieties about the devastating impact of the loss of human lives on the national health. The consequence, as G.F. McClearey argued, was 'the uprising of the national spirit which sought expression in various kinds of activity for the national good. To many it seemed that caring for the mothers and babies of the country was work of special importance at that time—a form of war-work that called for the enlistment of many workers.'⁵ In the post-1918 years, preserving the health of infants in ensuring the healthy growth of the population and improving the racial stock was also paralleled by efforts to reduce maternal mortality.

Reverberations of the infant welfare movement were felt across the globe. India, being one of the strongholds of British Empire, came to appropriate concerns for maternal and infant health in a way that helped forge its own socio-political agendas of nationhood. The chapter will demonstrate how debates on the importance of maternal and infant life came to reflect

⁴ Anna Davin, 'Imperialism and Motherhood', *History Workshop*, No.5, spring 1978, pp.9-65.

⁵ G.F. McClearey, *The Maternity and Child Welfare Movement* (London: P.S King & Son, 1935), pp.15-16.

nationalist imperatives of the Bengalis in the post Swadeshi era.⁶ The socio-economic factors causing infant and maternal mortality in Bengal such as child marriage, early maternity, poverty and lack of adequate milk supply were amply recognized in the nationalist press and in the writings of Bengali medical men. Yet the solution was sought not so much in directly addressing the socio-economic issues as in advocating medicalization of childbirth and professional supervision of pregnancy and infant health.

The public health policies in Bengal which were hitherto confined to regulating sanitary measures and addressing epidemic diseases such as malaria, cholera, influenza, *Kala-Azar*, etcetera were expanded in the twentieth century to include maternal and child welfare schemes. From 1910 onwards, local bodies in Calcutta, mainly the Calcutta Corporation, initiated health visiting schemes which, by 1914, were linked to the objective of combating infant mortality caused by tetanus neonatorum. From the second decade of the twentieth century, maternal and infant health was gradually incorporated as an integral component of public health policies, as it was in England and elsewhere.⁷ It signalled a more comprehensive role for the public health workers and medical professionals that required them to analyse the health conditions of expectant mothers in their specific socio-economic settings. It also entailed educative and health awareness schemes for the lay public that included exhibitions, baby shows, lectures with the aid of magic lantern slides and documentary films.⁸ One of the key concerns of this chapter is therefore, to examine how the redefined public health administration shaped the contours of maternity and infant care services in Calcutta and the outlying districts in Bengal.

The chapter is divided into two main sections: the first section will trace the constitution of a medical discourse on maternal and infant health that was heavily laced with social,

⁶ The Swadeshi movement was an offshoot of the anti-partition movement that crystallized around the Viceroy's decision to partition Bengal citing administrative reasons. The Swadeshi movement started with an economic motive to promote and stimulate the growth of indigenous industries in Bengal, but went on to become the economic, political and spiritual weapon of the Bengalis symbolising the desire for independence. The years following the Swadeshi movement were marked by strong nationalist ideas amongst the Bengalis. For details see, Sumit Sarkar, *The Swadeshi Movement in Bengal, 1903-1908* (New Delhi: Permanent Black, 2010), S.N. Sen, *History of Freedom Movement in India, 1857-1947* (New Delhi: New Age International Publishers 1997).

⁷ For instance, see Donald Paterson, 'Maternity and Child Welfare Services in their Relation to Public Health' *British Medical Journal*, Vol.1, No.3773, April, 1933, pp.742-744.

⁸ *Bengal Public Health Report, 1925* (Calcutta: Bengal Secretariat Book Depot), p.65.

nationalistic and eugenic concerns in the inter-war years. Drawing upon Jane Lewis's argument on how maternal and infant mortality was defined chiefly in terms of a series of medical problems in England,⁹ the chapter will demonstrate how the Bengali medical men, both obstetricians and licentiate doctors, seized upon the public concerns for maternal and infant health to assert the need for greater medical control and professional supervision over pregnancy and childbirth. Reforming the conditions of childbirth was at the same time driven by the nationalist rhetoric of motherhood that prompted the medical profession to articulate its role in nationalist terms. At the Second All India Obstetrics and Gynaecological Congress held in Bombay in 1937 the renowned Bengali obstetrician Bamandas Mukherjee claimed that, 'what we should all bear in mind is, that in any future plan of national reconstruction, outlined by the State, the Obstetrician and the Gynaecologist will have a very important role to perform.'¹⁰ The essence of an obstetrician's work, according to Mukherjee, lay in adopting suitable educational measures and propaganda work to eradicate maternal ignorance and rescue Indian mothers from the clutches of untrained dhais. Co-ordination between the Government, the medical profession and an 'enlightened' public was perceived as being central to the nation-building work.¹¹

The argument in the first part of this chapter is based on Bengali health journals edited and contributed by Bengali male doctors but read by a wider group of people beyond the pale of medical profession. These prominent journals include *Svasthya Samachar*, *Svasthya* and *Sonar Bangla*. This is in contrast to the medical journals such as *Bishak Darpan* and *Cikitsa Prakasa* referred to in chapter two which contained matters of academic interest directly related to the expansion of professional knowledge in various branches of medicine and hence, meant chiefly for professional readership. Medical journals in English language such as the *Calcutta Medical Journal* and *Indian Medical Record* which were run independently by Bengali medical men have also been drawn upon in order to analyse the nationalist nature of arguments of medical professionals.

The second part of this chapter will critically evaluate the implementation of maternal and child welfare schemes in Bengal. It will focus primarily on the role of local bodies like the

⁹ Jane Lewis, *The politics of Motherhood: Child and Maternal Welfare in England, 1900-1939* (London: Croom Helm, 1980), Introduction.

¹⁰ Bamandas Mukherjee 'Second All India Obstetric and Gynaecological Congress Bombay', *Medical Digest*, Vol.6, No.4, Jan. 1938, p.142.

¹¹ Ibid.

Calcutta Municipal Corporation and newly evolved institutions like the All India Institute of Hygiene and Public Health in extending the scope of maternity services to a larger section of the population consisting mainly of the lower middle class and the slum dwellers in Calcutta. It will argue that the contribution of the Calcutta Municipal Corporation was pivotal to the expansion of modern maternity services in creating new categories of health visitors and domiciliary midwives and also in promoting the shift of the site of birth from home to hospitals and maternity homes under its auspices. Much of it was, however, an emulation of maternal and child welfare work in England in the inter-war years. The discussion is based on the annual reports of the Calcutta Corporation, the Public Health Department and the All India Institute of Hygiene and Public Health.

Nationalist rhetoric of motherhood

The relevance of maternal and infant health in the broader nationalist vision was far from being clearly spelt out in the late nineteenth century. The bhadralok's concerns for physical health of the Bengalis sometimes led to recognition of certain social customs as being responsible for the declining health of mothers and the birth of weak infants. Such arguments were usually framed by medical men of the bhadralok class with professedly dual commitments towards social reforms and the advancement of western scientific medicine. Towards the end of the nineteenth century, the medical men started a number of health journals in Bengali language with the goal of spreading health education amongst the masses. Dissemination of scientific-medical explanations of pregnancy and management of maternal and infant health in familiar cultural and nationalist terms constituted one of the chief functions of such journals.

Concerns for 'national health' (*jatiya Svasthya*) found increasing expression in the popular print from the last two decades of the nineteenth century. In 1885 *Cikitsa Sammilani* complained that the 'Bengalis, who are too easily moved by the apparent importance of issues, fail to see the real Bengali issue of improving their physical health.'¹² The long-standing idea of physical weakness came to be associated with racial degeneracy (*jatikkhoy*). The solution, as alluded to in the journals, was two-fold: an engagement with the idea of enlightened motherhood as the key to rearing healthy citizens. At the same time, the

¹² 'Indigenous Health Science', *Cikitsa Sammilani*, May-June, 1885 as translated in Pradip Kumar Bose, *Health and Society in Bengal: A selection from late 19th-Century Bengali Periodicals* (New Delhi: Sage, 2006).

responsibility of preserving maternal health as crucial for curtailing infant mortality and ensuring the birth of healthy infants was also underscored. Secondly, the need was felt to recognize child-marriage as a potent societal evil causing early maternity (untimely pregnancies) and the birth of weak infants and thereby, contributing to the racial decline of the Bengalis. Child-marriage and early maternity were increasingly addressed and explained through the prism of eugenics.

The trope of motherhood was particularly powerful in Bengal. While mothers' social responsibility in rearing healthy and morally upright children for the prospective Indian nation was emphasised in the nationalist discourse from the early twentieth century, maternal ignorance was highlighted as a major stumbling block causing sickness and mortality among infants. The rhetoric of motherhood in Bengal had its genesis in the imagination of the nation as mother in Bankim Chandra Chattopadhyay's proto-nationalist novel *Anandamath* published in 1878. Bankim's portrayal of the country as mother was appropriated by the nationalists in the phase of militant Hindu nationalism of the 1890s. Abanindranath Tagore's painting of '*Bharat Mata* (Mother India)' further added a strong patriotic dimension to the nationalist imagery of motherhood during the Swadeshi era (1903-1908).¹³ According to Jasodhara Bagchi, what set Bengal apart from other regions of India was 'the prevalence of goddess worship' which 'certainly facilitated the empowering of the mother-image in Bengal so that it becomes the most dominant myth of colonial Bengal.'¹⁴ Bengal's long standing tradition of worshipping Shakti, Kali, Durga and Savitri--the various mythological forms of mother goddess-- had resonances in the bhadrakalok imagination of the nation as a feminine entity.

Margaret M. Urquhart's pioneering ethnographic research on the purdahnashin Bengali women in the 1920s placed the worship of mother goddess in Bengal in a slightly different perspective; by tracing it to the sacrosanct and intense relationship between the mother and her son. To quote Urquhart, 'Love of her son is the ruling passion of the Bengali woman, at least so it would appear to the onlooker....It is, perhaps, the intensity of this relation that has

¹³ Tanika Sarkar, 'Nationalist Iconography: Image of Women in 19th century Bengali Literature', *Economic and Political Weekly*, Vol.22, No.47 (November 1987), pp.2011-2015.

¹⁴ Jasodhara Bagchi, 'Representing Nationalism: Ideology of Motherhood in Colonial Bengal', *Economic and Political Weekly*, Vol.25, No.42-43, Oct, 1990, p.66. Indira Chowdhury has also argued that, 'The bhadrakalok invention of the goddess of the motherland or the Bharat Mata combined different attributes of both Durga and Kali.' See Indira Chowdhury, *The Frail Hero and Virile History: Gender and the Politics of Culture in Colonial Bengal* (Delhi: Oxford University Press, 1998), Chapter 4.

influenced Hindu religious thought and expression so profoundly. To the Hindu it is the mother aspect of God that calls for his most fervent worship.’¹⁵ Recent historical and anthropological researches on Bengali women confirm Urquhart’s views on the nuances of mother-son relationship in Bengal. According to Bharati Ray, mother-son ‘emotional bond’ was more powerful than any other relationship constituting the ‘core’ of the mother’s ‘uterine family.’¹⁶ In a similar vein, Manisha Roy’s anthropological study of Bengali women in the 1960s and 1970s shed light on the intense bonding between the mother and son, which was sought in the customs of the son sleeping close to mother, familial codes forbidding physical and emotional attachment with father and lastly, the practice of late weaning.¹⁷

The intensity of the mother-son relationship described by Urquhart underscored the significance of mother’s role within the family. The mother was, as an essay entitled ‘*Adarsha Janani*’ (Ideal Mother) stated in 1871 ‘the symbol of order, peace and prosperity in the household. She serves everyone and epitomizes the splendour and beauty of the loving goddess.... the mother should cultivate the spiritual qualities of broad-mindedness, affection, softness of heart, simplicity, tolerance and kindness.’¹⁸ The religious notions attached to motherhood came out more sharply in another article published in *Bamabodhini Patrika* in 1886 in which love for mother was equated with devotion to god. A person had to immerse himself in devotion to mother in his craving for peace, knowledge and love.¹⁹

In the post-Swadeshi era, the role of the mother was expanded by linking her spiritual role to nation building activities that chiefly entailed the task of creating a strong nation. As Sumit Sarkar has pointed out, Swadeshi movement in Bengal contributed, in myriad ways, towards shaping the trend of nationalist politics till the end of colonial rule.²⁰ The nation-building

¹⁵ Margaret M. Urquhart, *Women of Bengal: A Study of the Hindu Pardanashins of Calcutta*, Second Edition (Calcutta: Association Press (Y.M.C.A), 1926), pp.83-84.

¹⁶ Bharati Ray, ‘Women of Bengal: Transformation in Ideas and Ideals, 1900-1947’, *Social Scientist*, Vol.19, No.5/6, May-June, 1991, p. 19.

¹⁷ Manisha Roy, *Bengali Women* (Chicago and London: Chicago University Press, 1975), pp.166-167.

¹⁸ ‘*Adarsha Janani* (Ideal Mother)’, *Bamabodhini Patrika*, Vol.8, No. 101, December 1871, pp.261-264, see p.262.

¹⁹ ‘*Ma*’ (Mother), *Bamabodhini Patrika*, No. 256, February 1887, pp.290-293. Another series of essays making similar points which began to be published in *Bamabodhini* from September was, ‘*Matribhakti o Matriupasana e Santaner Mukti* (Son’s liberation lies in Devotion to Mother)’, *Bamabodhini Patrika*, No.356, September 1894, pp.132-134.

²⁰ Sarkar, *The Swadeshi Movement*, pp.419-420.

activities in the post-Swadeshi phase constituted a step-by step revitalization of national life including reviving 'autonomous' economy, education, family and health. In this milieu the role of mothers in rearing healthy children for the service of the nation and in restoring the vitality of the Bengali race was repeatedly emphasised in prescriptive pamphlets such as 'Adarsha Janani' or ideal mother (1914) 'Santan Palan' or child-rearing (1915), 'Sisu Palan' or infant-rearing (1916) and 'Jananir Prati' or address to the mother (1919).²¹

Despite the role of mother being redefined in social and national terms, maternal ignorance was highlighted as a major factor affecting mortality rates in the Bengali popular discourse from the early decades of the twentieth century. Anna Davin has pointed out in the context of England how maternal ignorance was cited as the most important factor for explaining rising infant mortality at the cost of marginalizing other factors such as medical ignorance, poverty and lack of access to medical care.²² In Bengal however, maternal ignorance was not the central point of criticism but still came to be recognized as a dominant factor causing infant mortality along with poverty, poor hygiene and ignorance of the dhais.

To offer an example, Ramesh Chandra Ray, a licentiate doctor, undertook a systematic survey of the conditions of the Bengali school boys in April 1916. Finding the 'poor physique, the feminine build and carriage...of our school boys' Ray went on to investigate the causes of infant mortality and weak physique of the children. Of all the causes highlighted such as lack of nourishment of the mother, insanitary conditions of Bengali homes or attack of malaria during pregnancy, maternal ignorance was cited as one of the prime factors. It was argued that an average Bengali girl had 'no knowledge of the immense importance of breast-feeding, of the delicate mechanisms of the child's body and of the intricate functions of her own sex organs....This dense ignorance is responsible for the horrors of the Indian natal chamber as well as for all the evils wrought by the quack midwife in the name of self-

²¹ See Debendranath Mukherji, *Khokar Ma* (The Baby's Mother: Hints to a Mother on the Feeding, Rearing and Diseases of Infants (Calcutta: Aryan Press, 1902); Sarachchandra Dhar, *Adarsha Janani* (Dhaka: Nagendrachandra Roy, 1914); Jogendra Lal Chowdhury, *Adarsha Janani* (Ideal Mother) (Calcutta: Swarna Press, 1927); Anurupa Devi, *Sisumangal* (Instruction in Child Welfare and rearing of children) (Calcutta: Bodhodoy Press, 1926. Apart from individual pamphlets, series of articles on infant rearing were published, for instance, see, 'Santan Palan (Child Rearing)' *Svasthya Samacara*, Vol.4, No.2, June 1915; Vol.4, No.3, July 1915; Vol.3, No.6, September 1915; Vol.4, No.8, November 1915; Also see 'Sisupalan' (Child Rearing) *Svasthya Samacara*, Vol.5, No.3, July 1916, pp.76-79; 'Jananir Prati (An Address to the Mother) *Svasthya Samacara*, Vol.8, No.7, Oct 1919, pp.148-150; Vol.4, No.3, July 1915; Vol.3, No.6, September 1915; Vol.4, No.8, November 1915.

²² Davin, 'Imperialism and Motherhood'.

advertised experience and efficiency.’²³ The remedy according to Ray lay in systematic training of girls and expectant mothers in mothercraft, a term borrowed from England.²⁴

The subjects of mothercraft and housewifery were not new in Bengal, having roots in the late nineteenth century reformist discourse. They were, however, freshly framed as matters of national interest in the inter-war years. Mothercraft included training in subjects like physiology, hygiene, first aid, infant care, home nursing, diseases of the infants and their prevention and a general idea of maternity. In the years following the First World War, housewifery and mothercraft were beginning to be considered as integral to a woman's contribution to society and towards saving 'the soul of the future nation.'²⁵ However, Samita Sen's research on working class women in the Bengal jute mills reveals class differences being ignored in the application of such thoroughly middle class notions of mothercraft to the poor working class women. As Sen argues, the compulsion of the working class mothers to earn outside home in order to feed their children and the consequent responsibility of the children to manage household work led to dominant middle class notions of motherhood being undermined.²⁶ The discussion on motherhood was not solely confined to delineating women's role in rearing the future citizens of the nation. As the next section will show, conditions of maternal health also came increasingly under medical scrutiny and became the subject of public discussion in the early twentieth century.

Child Marriage and Early Maternity

The question of infant and maternal mortality assumed national importance in the aftermath of the Swadeshi movement in Bengal, evoking different responses from the nationalists and the British officials.²⁷ The British officials and western observers squarely blamed the

²³ Ramesh Chandra Ray, 'Child Welfare', *Indian Medical Record*, Vol.39, September 1919.

²⁴ In the later years, A.C. Chatterjee, the Director of Public Health singled out the role of bhadramahila in promoting national health and welfare by imagining her in multiple roles of mother, wife, 'head of the family', 'doctor of medicine', 'public health nurse', 'sick nurse', midwife, social worker and teacher of health education. A.C. Chatterjee, 'Women's Role In National Health', *Calcutta Municipal Gazette*, June 1941, p.211.

²⁵ Ray, 'Child Welfare'.

²⁶ Samita Sen, *Women and Labor in Late Colonial India: The Bengal Jute Industry* (Cambridge: Cambridge University Press, 1999), p.149.

²⁷ Dagmar Engels, 'The Politics of Childbirth: British and Bengali women in contest, 1890-1930', in *Beyond Purdah? Women in Bengal, 1890-1930*, (New Delhi: Oxford University Press, 1996), pp.123-161.

‘moribund’ Bengali social customs of child-marriage, and ‘bad midwifery’ for infant and maternal mortality. The census reports and annual reports of the Calcutta Municipal Corporation and Public Health Department documented the ‘official’ view. The Census of 1911, for instance, attributed high infant mortality to ‘premature birth’, ‘debility at birth’ ‘bad midwifery’ and ‘tetanus neonatorum due to the umbilical cord being cut with dirty instruments.’²⁸ In 1914, H.M. Crake, the Health Officer of the Calcutta Corporation, identified similar causes further linking ‘tetanus neonatorum’ to ‘ignorance and defective midwifery practices’ and attributing ‘debility at birth’ and ‘premature birth’ to ‘the economic and social conditions of the people, particularly poverty, insanitary conditions, child-marriage and the purdah, a baffling group of causes.’²⁹ While economic conditions and poverty of the masses were recognized as obstacles, they were certainly not considered as the most significant factors causing infant and maternal deaths.

The nationalists, on the other hand, were more inclined to critique the economic policies of the state, lack of pure milk supply and bad housing conditions in Bengal than accepting *prima facie* the colonial denigration of Bengali socio-cultural practices.³⁰ In this connection, the Bengali health magazine *Svasthya Samachar* pointed out that, ‘if social customs were the main reasons behind infant mortality, both the communities (Hindu and Muslim) would have ceased to exist long back.’³¹ However, nationalist response was seldom homogenous and varied from being defensive and traditionalist (as evident during the Age of Consent Bill Controversy when child marriage and early consummation were defended on religious and traditional grounds) to being self-critical, secular and modernist (as in the inter-war years). For instance, the aspersions cast on the traditional dhais were a common factor in colonial and nationalist attitude and hence, constituted a form of self-criticism by the nationalists. With an equal ardour the time-honoured custom of child marriage was denounced from twentieth century onwards. Notwithstanding the massive conservative uproar over the Age of Consent Bill (1891) that raised the age of sexual consummation for girls from ten to twelve,

²⁸ L.S.S. O’Malley, *Census of India (Vol.VI): City of Calcutta, Part I* (Calcutta: Bengal Secretariat Book Depot, 1913), p.2.

²⁹ H.M. Crake, *Report of the Health Officer of Calcutta* (Calcutta: Corporation Press, 1914), p.5.

³⁰ Engels, ‘Politics of Childbirth’.

³¹ ‘*Sisu Marak*’ (Infant Mortality), *Svasthya Samacara*, Vol.8, No.3, July 1920, p.53.

child marriage continued to figure as a controversial subject in middle class discourses reflecting eugenic concerns of the Bengalis for the decline of the nation.

At the turn of the century, arguments about the weak constitution of the Bengalis were being emphatically tied to the social practices of child marriage, multiple marriage, alcoholism and masturbation. However, it was in the condemnation of child-marriage that the eugenic concerns of the Bengalis became most conspicuous. As Sarah Hodges has argued, marriage reforms were central to the eugenics discourse in India, meagre attention being otherwise paid to eugenics research and investigations into the specific mechanisms of heredity. The focus of Indian eugenicists was, exclusively on caste-based 'arranged marriages' with purported roots in ancient Indian society. Arranged marriages were perceived as the quintessential Indian way of uniting couples capable of producing healthy offspring. As part of the eugenics discourse, reform of child-marriage was connected to reproductive health and national progress.³²

Reflecting upon how child marriage was related to questions of health, an essay published in 1901 in *Svasthya* argued that, 'It is usually seen that children of healthy parents are strong and healthy, whereas weak children result from a marriage between parents in poor health.....it needs no great effort to show that the primary reason for the weak constitution of Bengalis lies in the custom of child marriage practised by them.'³³ While lack of nutritious food and physical exercise were also recognised as major factors, child-marriage was considered as a 'far more important' factor in producing weak and unhealthy children. Further, U.N. Mukherji's book entitled *Hindus—A Dying Race* published in 1909 seized upon such anxieties to portray morbid picture of a shrivelling, physically weak Hindu race as opposed to a strong and blooming Muslim population.³⁴ Mukherji's central idea of the extinction of the Hindus heavily impinged upon the consolidation of a communal ideology in Bengal.³⁵ The imagery of a 'dying Hindu race' had strong resonances in the writings of

³² Sarah Hodges, 'Indian Eugenics in an Age of Reform', in Sarah Hodges ed., *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).

³³ 'National Health-How Marriage Affects It', *Svasthya*, January-February 1901, as translated by Pradip Kumar Bose., *Health and Society in Bengal: A Selection from Late 19th-Century Bengali Periodical* (New Delhi: Sage, 2006). pp 134 – 135.

³⁴ U.N. Mukherji, *Hindus-A Dying Race* (Calcutta, 1909).

³⁵ Pradip Kumar Dutta, *Carving Blocs: Communal Ideology in Early Twentieth-Century Bengal* (New Delhi: Oxford University Press, 1999), Chapter One.

medical men and educated middle class women, particularly in their apprehensions about the diminishing vitality of the nation. Thus, in 1919, the prominent women's magazine *Bharati* considered child-marriage and early maternity leading to maternal mortality as the chief causes for the decline in national health and deterioration of race.³⁶

A distinct eugenic argument was also visible in writings that reflected an interest in preserving purity of the Bengalis through preventing marriages between unfit partners. For instance, in an interesting article entitled '*Bibahopon o Svasthya*' (Dowry and Health) published in 1901, linkages were made between women's health and the deeply entrenched social custom of dowry. It was alleged that the greed of the guardians negotiating profitable marriage deals often blinded them to any 'genetic disease' running in the family or the possibilities of ailments like rheumatism, tuberculosis, asthma and contagious diseases being passed on to the offspring.³⁷ The example of dowry was perhaps one of the ploys evolved by the bhadralok medical men in explaining the role of an 'inappropriate marriage' in accentuating the chances of 'genetic diseases' being transmitted from parents to children.

Anxieties over 'congenital defects' of parents and their impact on racial vitality of the nation intensified in the changed political climate of the post First World War years when maternal and infant health became global concerns. The pressure from post-war international bodies like the International Labour Organization and the League of Nations sharpened the focus on the socio-economic conditions in which birth took place. Comparative studies conducted by the League of Nations on factors affecting infant mortality in European and South American countries revealed congenital and developmental defects as potent causes of infant death.³⁸ Bengali health journals cautioned women on the need to be aware of those mental and physical disabilities of the infant which were induced by a combination of societal ills like child marriage and congenital diseases of parents. There were repeated warnings against the dangers of venereal diseases like syphilis and gonorrhoea being directly transmitted to the offspring. Dr Ramesh Chandra Ray stated in 1919, 'Now that the subject of eugenics is so well known, it would be useless to note of time and space to dilate on the supreme necessity

³⁶ Such articles portraying infant mortality as reflection of the deterioration of race appeared in *Svasthya Samacara* and also in women's magazines such as *Bharati*. For instance see, '*Jatikkhoy o Sisu mrityu* (Racial Deterioration and Infant Mortality)', *Bharati*, Vol.43, No.10, January 1919.

³⁷ '*Bibahopon o Svasthya* (Dowry and Health)', *Svasthya*, Vol.5, Nos. 6 & 7, September-October, 1901.

³⁸ K.C. Chaudhuri, 'The Problem of Infant Welfare in Calcutta', *Calcutta Municipal Gazette*, Fourth Health Number, March, 1932, p.62.

for choosing as life's partner one who is healthy in every sense of the term....if the State has the right to punish any individual who propagates disease, has it not the right to punish anyone who offers his syphilitic boy or girl in marriage?'³⁹ The Bengali medical men even went to the extent of advising sickly individuals or those suffering from tuberculosis to abstain from getting married or having children.⁴⁰

With the rise of Gandhian nationalism in the 1920s and the culture of mass politics it fostered, the predominance of Hindu cultural nationalism in Indian politics receded to the background. Gandhian movements also encouraged participation of women in the public sphere as a form of devotional service to the nation. In such a milieu, the long running controversies on child marriage and the sexual practices of the Indians acquired a nationalist-political hue with the publication of Katherine Mayo's *Mother India* in 1927. *Mother India* located the root of India's political immaturity and unfitness for self-rule in the Indian male's manner 'of getting into this world and his sex-life thereafter.'⁴¹ Of all the vices mentioned early consummation and early maternity were particularly stressed. *Mother India's* publication brought the connected themes of child-marriage, maternal and infant mortality and eugenics to the forefront of public debates. The protagonists in the debate included political leaders, social reformers, doctors, feminists and members of the ordinary public.

On the official side, an enquiry committee known as the Joshi Committee (the other name being Age of Consent Committee) was appointed in 1927 to investigate the actual nature of conjugal practices of the Indians. A pronounced eugenic sensibility ran through its conclusion that, 'Early maternity is an evil and an evil of great magnitude. It contributes very largely to maternal and infantile mortality, in many cases wrecks the physical system of the girl and generally leads to degeneracy of the physique of the race.'⁴² The Committee also concluded

³⁹ Ramesh Chandra Ray, 'Child Welfare: Anti-Venereal Campaign,' *Indian Medical Record*, Vol.39, September 1919, p.161.

⁴⁰ For instance, one Dr. Panchanan Basu in an essay entitled '*Sisumrityur Protikar* (Ways to arrest infant mortality), explained how diseases like malaria or tuberculosis which afflicted the mother during pregnancy resulted in the birth of weak and diminutive children. See, Dr Panchanan Basu, '*Sisumrityur Protikar* (Ways to arrest Infant Mortality)', *Svasthya Samacara*, Vol.15, No.4, July 1926. See for instance, '*Sisu Marak* (Infant Mortality)', Vol.8, No.3, July 1919; '*Bange Sisu Mrityur Karon* (Infant mortality in Bengal and its reasons)', *Svasthya Samacara*, Vol.8, no.6, September 1919; '*Sisu-mrityu o tahar karon* (Infant mortality and its reasons)', *Svasthya Samacara*, Vol.8, No.11, February, 1919.

⁴¹ Mrinalini Sinha ed., *Mother India: Selections from the Controversial 1927 Text* (Delhi: Kali for Women Press, 1998), p. 3.

⁴² Quoted in Laxmibai Rajwade, 'The Indian Mother and her problems' in *Our Cause: A Symposium by Indian Women* (Allahabad: Kitabistan, 1938), p.80.

that not only early maternity, but frequency of births at short intervals coupled with the conditions under which birth took place had a strong bearing on maternal and infant health. Thus, Mayo's *Mother India*, despite being trenchantly criticised by virtually all sections of Indian society, triggered a vigorous campaign for eradicating the custom of child marriage. This time it met with greater success than before and led to the promulgation in 1929 of the Child Marriage Restraint Act (popularly known as the Sarda Act) which raised the marriageable age for girls to 14 and for boys to 18.

In the inter-war years, one of the perceptible trends in the health journals was the manner in which 'national' health was defined in terms of drawing examples from other parts of the world. Nationalism was envisioned as a comprehensive development of the nation along modern/scientific lines in the global hierarchy of civilizations. Exemplary tales of advancements in maternal and child welfare work in European countries, America and New Zealand were published in popular health and women's magazines with a view to drawing middle class readers into a cosmopolitanism that would facilitate the assimilation of international ideas into the nationalist discourse. It served to underscore the inabilities of the Bengalis and the Indian nation in grappling with the challenges of maternal and child mortality. The problems of overpopulation, illiteracy of women and the social customs of child marriage and early maternity were repeatedly cited as major barriers for advancing the cause of infant welfare in Bengal.⁴³

To sum up, this section has delineated the salient features of an emerging discourse on maternal and infant welfare in Bengal that was essentially brought into shape by the medical profession and was diffused through the pages of popular health magazines. It has argued how discussions on maternal ignorance, child marriage and early maternity had already been in vogue from the end of nineteenth century. However, they acquired a pronounced 'eugenic' overtone in the twentieth century, more so, in the post-1918 years. Pressure from international organizations and the flutter caused by the publication of Mayo's *Mother India* were equally powerful stimulants. The solution was sought in medical remedies by the obstetricians, the public health officials, the nationalists and the educated middle class women. It was thus, not so much a denial of socio-economic factors but an increased

⁴³**Sisur Pranraksha* (Saving the Life of Infant)' *Svasthya*, Vol.4, No.10, 1916, pp.307-310. The article was originally published in another Bengali periodical *Prabasi*.

advocacy of medical solutions that triggered the need for expanding the scope of maternity services.

Maternal and Infant Welfare Work in the Post-1918 Years

In Bengal the initial maternal and infant welfare schemes implemented in the post 1918 years were not nationalist endeavours, *per se*. Instead they were ventures undertaken by the vicereines thus indicating multiple drivers of change. The momentum was provided by the formation of the National Health and Baby Week Council in England in 1917.⁴⁴ The baby week and the infant welfare and health exhibition associated with it were intended to create favourable atmosphere 'for an all-sided study and consideration of this important National problem and thus the public opinion so enlivened, can be taken advantage of in starting permanent institutions like Health Associations.'⁴⁵ However, unlike the situation in England, state intervention in India was limited, direct state involvement being largely absent. It was mostly in the nature of sanctioning semi-official enterprises which, in most cases, relied on public subscription. The Association for the Provision of Health Visitors and Maternity Supervisors, founded in Delhi in 1918, is a case in point.

The Association was the first serious effort to directly address the issue of maternal and infant welfare in India. Its objective was to remove 'the adverse conditions which too often attend child-birth in India and to educate and enlighten the people in those matters in which care is essential if the population of the country is to be conserved and the rising generations are to grow up as strong and healthy citizens....it is the object of the Association to... improve the knowledge and the work of dais.'⁴⁶ Thus, the Association aimed for improving the work of the dhais rather than supplanting them altogether. Although the Association was initially started with a grant of Rupees six thousand provided by the Government of India, the scheme ultimately had to depend on public subscription from the princes and chiefs of India. A similar health school came into being in Calcutta in the 1920s through the initiative of the

⁴⁴ Thomas, 'The National Health and Baby Week'.

⁴⁵ NAI, Foreign and Political Department, General Branch, September 1920, Part B.

⁴⁶ Ibid.

Red Cross Society although its success in attracting candidates for training in health visiting was rather limited.⁴⁷

The next milestone in the child welfare movement in India was, according to Margaret Balfour, the maternal and child welfare exhibition held in Delhi in 1920. Balfour ascribed the origin of the idea for the exhibition to the interest of Vicereine Chelmsford in the welfare of the women and children of India. According to Balfour, it was the Vicereine's relentless appeal for philanthropic contribution to the cause of child welfare work, that the Lady Chelmsford League for Maternity and Child Welfare was founded in 1919. The exhibition was eventually held under the banner of the League.⁴⁸ It intended to conduct practical demonstrations about the harmful consequences of carelessness during childbirth by deploying models, pictures, lectures, etcetera in order to ensure greater intelligibility by the masses. The conviction underlying such efforts was that 'such exhibitions are of great value in stimulating public interest..... The Exhibition may therefore be regarded as a useful supplement to the work of the Association and it is hoped that it may emphatically draw public attention to the value of the ends which the Association has in view.'⁴⁹

The Association set the trend in India for maternity and child welfare exhibitions which were, in the following years, conducted in different major cities and in the process, acquired a pan-Indian hue. Following its success, Vicereine Reading started the National Baby Week in 1924 highlighting the urgency of such events in the national life of the people. The concept of baby week was welcomed by a section of the Indian leaders and elites. One of them, the Begum of Bhopal, stated that, 'The holding of an annual Baby Week is a great step forward in the direction to which energies must be spent if we wish to equip our women for the sacred duty of bringing up strong and healthy children who will stand the wear and tear of strenuous times ahead and be a source of pride to their race.'⁵⁰ Its importance also lay in turning the attention of the Indian public towards adopting a more comprehensive programme for remedying the ills of infant mortality at an educational, preventive, economic and social level.

⁴⁷ Margaret Balfour and Ruth Young, *The Work of Medical Women* (Oxford: Oxford University Press, 1929), p.150.

⁴⁸ Balfour and Young, *The Work of Medical Women*, p.145.

⁴⁹ Ibid.

⁵⁰ Thomas, 'The National Health and Baby Week', p. 58.

In Bengal, 'Baby Shows' became part of the activities of the Dufferin Hospitals. The nationalists' response towards the practical utility of such 'western' propaganda methods in arousing the interest of middle class women was initially sceptical. Proposals to educate the fathers and husbands who were thought to be responsible for the well-being of the mother and the new born infant were presented as more viable alternatives.⁵¹ However, such western propaganda methods appeared less alien and more Indian with the intervention of Bengali middle class women from the 1920s.

Maternal and Child Welfare and the Womens' Organizations

From the 1920s, Bengali middle class women directly took up midwifery work. Utilizing the platform of mahila samitis (women's organizations) they popularized the notions of maternal and child welfare in respectable Bengali homes. The role of Saroj Nalini Dutt Memorial Association (SNDMA), a prime middle-class Bengali women's organization founded in 1925, was fundamental in this regard. Dagmar Engels has demonstrated the success of the organization in gaining access to the district and village homes when compared to similar semi-official efforts made by Vicereine's baby shows or exhibitions.⁵² The mouthpiece of the organization, *Bangalakshmi* revealed its expanding network in terms of integrating other mahila samitis within its all-encompassing fold and conducting educative lessons on health, hygiene, domestic science, handicrafts, midwifery, etcetera in the villages and districts of Bengal.

Kalitara Dasgupta, the President of the Madaripur Mahila Samiti, being herself trained in midwifery made personal visits to respectable middle class homes and imparted education on maternal and infant welfare. Dasgupta also sought the assistance of the local assistant surgeon in arranging classes on maternal and child health to be held under the auspices of the Samiti.⁵³ In the district of Bankura where the rate of infant mortality was stated to be high, special efforts were made to institute a dhai training class where catheters, scissors, nail brushes, carbolic soaps and Vaseline were regularly distributed to the candidates. This apart,

⁵¹ Kaliprasanna Ray, 'Matrimangal o Sisumangal Saptaha (Maternal welfare and Baby Welfare Week)', *Svasthya Samacara*, Vol. 14, No.10, January 1926, pp.315-316.

⁵² Engels, 'Politics of Childbirth'.

⁵³ 'Mahila Samiti Sangbad: Madaripur (News from women's organization: Madaripur)', *Bangalakshmi*, 1334-35(1927-28), pp.142-143.

baby shows were organized on an annual basis.⁵⁴ Similarly, maternal and infant welfare exhibitions were held in Barisal under the auspices of the Barisal Mahila Samiti and with the aid of female doctors and missionaries from local Baptist Mission. These were attended in large numbers by middle class and lower middle class Bengali women across religious divides.⁵⁵

On an all-India level, there were the early women's organizations such as *Bharata Mahila Parishad* (Indian Women's Conference) founded in 1904 as part of the National Social Conference and women-only bodies like the *Bharat Stree Mahamandal* (Indian Women's Association, 1910) and the Women's Indian Association (1917). These associations worked for the advancement of female education, enhancement of social and economic status of widows through primary education and employment, eradication of child marriage and seclusion of women. In the 1920s, the formation of the National Council of Women in India (1925) regarded as the national branch of the International Council of Women and the All-India Women's Conference (AIWC) (1927) constituted important milestones in the formation of a middle-class feminist discourse.⁵⁶

The AIWC, in particular, was instrumental in forging a space for debates and allowed a national network of feminists including eminent medical women to emerge as a powerful pressure group battling for women's issues. From the 1930s, maternity and child welfare work acquired prominence in the agenda of the AIWC, particularly after Dr Muthulakshmi Reddi's presidential address in Lahore in January 1931 where she spelt out the need to seriously consider the question of providing adequate medical aid to women, allegedly ignored so far by the Central and the Local Government. Reddi proposed the creation of a department of health in every Indian province under a senior woman medical officer as the director. The woman medical officer was to start female hospitals in areas where none existed, appoint female medical staff and establish training centres for nurses and midwives. The AIWC, Reddi argued, should also coax the Local Governments in India into passing legislation akin to the Maternity and Child Welfare Act of 1918 in England in order to ensure the provision of ante-natal and post-natal care of pregnant women and medical aid to women

⁵⁴ 'Bankura', *Bangalakshmi*, B.S. 1334-35 (1927-28), p.143.

⁵⁵ 'Barisal', *Bangalakshmi*, B.S.1334-35 (1927-28), pp.144-145.

⁵⁶ Radha Kumar, *The History of Doing: An Illustrated Account of Movements for Women's Rights and Feminism in India, 1800-1900* (New Delhi: Zubaan, 1993), Chapter Four.

in childbirth. Reddi further stated that it was the responsibility of the members of the AIWC to popularize the work of the maternal and infant welfare centres and ensure that adequate number of trained midwives were employed at such centres for assisting women during childbirth.⁵⁷

In 1932, AIWC arranged for the 'training and registration of midwives' on the pattern of similar legislations in England. It also emphasized the need for 'propaganda on public health and sanitation.'⁵⁸ At its annual session in 1934, the AIWC further passed a resolution urging the need for legislative measures for the compulsory registration of the dhais and the midwives.⁵⁹ At its fourteenth session held in Allahabad in 1940, a recommendation was made for the complete elimination of indigenous dhais in the next ten years and their replacement by trained midwives. Also in order to promote professional attendance of every mother at childbirth, provision of maternity beds in rural and urban areas in the 'proportion of one bed for 2,000 of population' was advocated along with the establishment of sufficient numbers of maternity and gynaecological hospitals. The inadequacy of the number of health visitors was pointed out and the need for a 'clear line of demarcation between the duties and responsibilities of the Health Visitor and the trained midwife' was stressed.⁶⁰

The middle class composition of the AIWC reflected the elitist nature of its demands. Dr Muthulakshmi Reddi's presidential address was a strong proof of such elitism. In prioritising western medical care, Reddi was overly influenced by English examples. Similarly resolutions aimed at marginalizing the dhais also failed to consider the fact that the choices of ordinary middle class women seeking assistance in childbirth were partly dictated by their financial standing and partly determined by the desire to be attended by a local and familiar dhai who would also perform domestic chores at nominal cost. Aparna Basu who was a prominent member of the AIWC and also wrote its history along with Bharati Ray, acknowledged the inability of the members of the organization to challenge the basic social, economic and cultural constraints that perpetuated gender subordination in Indian society.⁶¹

⁵⁷ S. Muthulakshmi Reddi, 'Presidential Address', *All India Women's Conference*, Fifth Session (Lahore, January, 1931), pp.34-35.

⁵⁸ Memorandum", *AIWC*, 7th Annual Report (Lucknow, 1933), p.140.

⁵⁹ Annual Report, *AIWC*, Ninth Session (Karachi, January, 1935), p.121.

⁶⁰ Annual Report, *AIWC*, Fourteenth Session (Allahabad, January 1940), pp.61-62.

⁶¹ Aparna Basu and Bharati Ray ed., *Women's Struggle: A History of the All India Women's Conference, 1927-*

Thus there were two main levels at which maternal and child welfare schemes were being implemented in colonial Bengal: a) imperialist efforts at semi-official level and b) nationalist enterprises at non-official level. Imperial initiatives, despite being indirect, provided the initial motivation. It formed the blue-print on which the foundation of future child welfare schemes were laid and developed in Bengal.

Role of the Local Government

Direct state initiative in women's health and maternal and child welfare work remained peripheral. Financial considerations remained central to any changes in the state's policy towards health throughout the nineteenth and the twentieth century. Whatever was of little political or economic importance to the empire was brushed aside as insignificant. In the sphere of women's health, for instance, chapter two has shown how financial considerations led the Medical College officials to prioritise training of dhais over that of indigenous male medical students despite the latter's interest in pursuing midwifery and diseases of children as part of medical education. In the early twentieth century, the economic imperatives of the central government further prevented any effective measures from being adopted in improving public health in Bengal as in other parts of India. As Ira Klein has argued, 'public health and sanitation were the ugly ducklings of a civil service which rewarded political and military competence, for example, far more highly.'⁶² Roger Jeffery while acknowledging that public health and medical services never figured in the high priority list of the Colonial state pointed to other factors that might have influenced the medical policy of the Government. Such factors were: the role played by medical bureaucrats, demands of the 'rising political classes' and the 'demands in the market for medical services and education.'⁶³ Yet the lack of interest of the Central Government was amply evident in its decision to transfer responsibility of public health to the local governments through the Government of India Act, 1919.

Popularly referred to as the 'Montague-Chelmsford reform' the Act of 1919 was a significant milestone in the decentralization and provincialization of health administration in India. In

1990 (Delhi: Manohar, 1990), p.143.

⁶² Ira Klein, 'Death in India, 1871-1921', *The Journal of Asian Studies*, Vol.32, No.4, August 1973, p.656.

⁶³ Roger Jeffery, *The Politics of Health in India* (Berkeley, Los Angeles, London: University of California Press, 1988) p.102.

the sphere of health, prior to the passage of the act, all power was wielded by the sanitary commissioner and a group of men under him possessing British diplomas of public health. The Act introduced a principle of 'dyarchy' by which certain responsibilities including medical administration and public health were transferred from the Governor-in Council to the popularly elected Indian ministers of local governments who were made responsible to the provincial legislatures. However, the department of finance being in the control of the Centre, the provincial governments were faced with a persistent lack of resources. Also, the lack of co-ordination between the Central Government and the provincial governments, which was further aggravated by frequent clashes of interests, impeded the smooth working of dyarchy.⁶⁴ This defect was corrected only with the establishment of a Central Advisory Board of Health in 1937.⁶⁵ On the whole, the Act of 1919 enabled the involvement of Indian ministers in framing and implementing policies in matters relating to medical administration and in the process, allowed the Central Government to remain indifferent.

Following the decentralization of public health administration, much of the work pertaining to maternal and infant health in the 1920s came to be conducted at an official level by local bodies, such as municipalities and district boards. In Bombay and Madras presidencies, local government and municipalities had taken over the responsibilities of modernizing birthing practices much earlier than Bengal presidency. In the case of Madras which was much ahead of the rest of India in western midwifery practices, the local government boards played a significant role from 1875 onwards in providing scholarship and employment to western trained midwives. By 1917, maternity and child welfare centres were established with women doctors in charge of them.⁶⁶ In Bombay presidency, municipal and local government endeavours to improve maternal and infant health began in 1901 when free milk was provided to the poor and home-visits were beginning to be made by nurses for instructing mothers on matters pertaining to personal and domestic hygiene. By 1914, at the behest of the Bombay Sanitary Association, three maternity homes with milk depots were established and twelve health visitors were appointed who were to provide ante-natal and post-natal care to women and train midwives.⁶⁷ In Bengal, the role of the Public Health Department in the

⁶⁴ N.Jayapalan, *Modern Governments and Constitutions*, Vol.II (New Delhi: Atlantic Publishers, 2002).

⁶⁵ Kabita Ray, *History of Public Health: Colonial Bengal, 1921-1947* (Calcutta: K.P Bagchi, 1998).

⁶⁶ David Arnold, 'Official Attitudes to Population, Birth Control and Reproductive Health in India 1921-1946' in Sarah Hodges ed., *Reproductive Health in India: History, Politics, Controversies* (New Delhi: Orient Longman, 2006), p.38.

⁶⁷ Mridula Ramanna, *Healthcare in Bombay Presidency, 1896-1930* (Delhi: Primus Books, 2012), see chapter 4.

sphere of maternal and infant health became visible only in the 1920s whereas that of the Calcutta Municipal Corporation came into view from 1910 onwards. As will be demonstrated in this chapter, Calcutta evidently followed in the footsteps of Bombay in initiating certain maternal and infant welfare schemes such as establishing maternity homes and appointing health visitors. The maternal and infant welfare schemes of the Corporation, once initiated, struck chord with the Bengali female population and facilitated the spread of western midwifery in Calcutta.

Interestingly, the Bengal Public Health Report claimed that one of the reasons for the surge in the infant welfare activities in Bengal was the enthusiastic involvement of the District Boards, local bodies and the various municipalities in organizing baby shows within the areas under their jurisdiction.⁶⁸ In the early 1920s there were five baby clinics in Calcutta and one in Dhaka.⁶⁹ Further, it was reported in the annual Bengal public health report of 1925 that 26 baby shows were organized in various mufassils towns.⁷⁰ It was also optimistically pointed out that 'People are realizing the great havoc that ignorance of hygienic rules causes in their homes, and their deep-seated prejudices in matters of infant welfare are being gradually shaken off. People are now more or less willing to spend something on baby clinics and other allied institutions. The work of existing baby clinics continued to be very satisfactory.'⁷¹ By the late 1920s, baby shows were integrated into the schema of health exhibitions and welfare shows that had been organized periodically by municipalities and district boards in Bengal. The nationalist press considered the health exhibitions as 'very good medium of propaganda', the most effective way to remove the 'ignorance of the masses about health matters.'⁷²

Despite persistent lack of sufficient funds the mediation of the Indian ministers through local boards and municipalities yielded more sustained results in winning public confidence and in implementing upgraded health measures. To elaborate the point, this chapter closely investigates the responsibilities taken over by the Calcutta Municipal Corporation from 1909

⁶⁸ *Bengal Public Health Report: Reports of the Bengal Sanitary Board and the Chief Engineer Public Health Department* (Calcutta: Bengal Secretariat Book Depot, 1925).

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² 'Improvement of Health: Propaganda Need' *Amrita Bazar Patrika*, 1 Jan, 1941.

in working out solutions to curb maternal and infant mortality. It explains how the initiatives of the Corporation triggered a series of initiatives such as establishing domiciliary midwifery services, health visitors and a chain of maternity homes and centres that were designed to improve the quality of professional attendance over childbirth.

The Calcutta Corporation's engagement with health matters had its genesis in the appointment of a permanent health officer in 1886 and more specifically, in the co-ordination of public health activities under the permanent health officer following the reconstitution of the Corporation in 1899. Eventually, the Calcutta Municipal Act of 1923 widened the sphere of activities of the Corporation. The Corporation claimed to enjoy independent power and responsibilities, with the local Government and its health department having no executive power over it.⁷³ Also, the election of an eminent lawyer and nationalist leader like Chittaranjan Das as the mayor of the Corporation in 1924 and a nationalist medical man like Dr Sundari Mohan Das as its Councillor imbued its activities with a distinct nationalist texture. Already, from 1909, maternal and child health began to constitute an area for medical investigation and the launching of welfare schemes. This was a few years before a systematic movement for maternal and child health came into shape in Bengal as elsewhere. The Corporation's contribution to maternal and child health therefore, constituted a pioneering effort in the first few decades of the twentieth century. With the lack of any central Government initiatives, it was the only official body showing some degree of social commitment towards maternal and infant health issues.

The maternity and child welfare schemes launched by the Calcutta Municipal Corporation were premised upon co-ordination between the medical profession and the public health officials. That, in turn, led to the understanding of pregnancy in relation to specific social and economic surroundings in which childbirth took place. In this respect, the role of the Corporation was pivotal to the expansion of the organizational base of midwifery services in Bengal, but this aspect has not been elaborately dealt with in the existing historiography. Supriya Guha has only cursorily mentioned the significance of Calcutta Corporation in producing trained midwives for domiciliary practices but has not analysed the process through which the maternal and child welfare schemes initiated by the Corporation enabled the consolidation of professional authority over childbirth.⁷⁴

⁷³ Fourth Health Number, *The Calcutta Municipal Gazette*, March 1932.

⁷⁴ Scholars like Mark Harrison and Kabita Ray have talked of Corporation's role in public health movement

The maternity and child welfare scheme of the Corporation chiefly drew the poor and lower middle class⁷⁵ female population of Bengal within the purview of medical supervision. Schemes such as domiciliary midwifery were evolved with the aim of ensuring improved maternity services and greater accessibility of female patients of all class to western medical care. The consequence was that slums and the lower middle class enclaves became the new sites of obstetric research on maternal morbidity. Chapter two has explained how the foundation of the Dufferin Hospitals was motivated by the need to provide medical assistance to the middle class purdahnashin women. It implied that the rest of the female population in Bengal lay outside the ambit of medical treatment rendered by the chain of Dufferin hospitals. In this context, the role of the Corporation assumes centrality in drawing the poorer section of the society within the scope of western medical care.

The maternal and infant welfare schemes of the Corporation began in 1913 with the change of designation of female sanitary inspector to that of 'Health Visitor' in order to make her role more positive and less imposing. According to G.F. McCleary, health visiting 'is a peculiarly British contribution to the various agencies of the maternal and child welfare

but have not elaborated on its important contribution towards the advancement of maternal and child welfare movement in Calcutta. See, Mark Harrison, *Public Health in British India: Anglo-Indian Preventive Medicine, 1859-1914* (Cambridge: University of Cambridge, 1994); Ray, *History of Public Health*

⁷⁵ The lower middle class in the nineteenth and the twentieth centuries was largely composed of unsuccessful bhadralok. Sumit Sarkar describes them as 'pandits losing patronage in the new era, obscure hack-writers, humble school teachers, clerks, unemployed educated youth, high-school boys with highly uncertain job prospects.... theirs has been a predominantly high-caste, yet depressed world.' See, Sumit Sarkar, 'Kaliyuga, Chakri and Bhakti: Ramakrishna and His Times' in *Writing Social History* (Delhi: Oxford University Press, 1997), pp. 305-306. The lower middle class lived in modest neighbourhoods in Calcutta. After 1905, due to the increasing fragmentation of land and the shrinking of employment opportunities for bhadralok as English education spread to other parts of the country, the bhadralok often were reduced to the status of lower middle class. See B.B. Misra, *The Indian Middle Classes: Their Growth in Modern Times* (London, New York, Bombay: Oxford University Press, 1961), p. 393. In the twentieth century, particularly in the post 1939 years, the middle class 'were pushed through the borderline of gentility towards the working class' due to inflation and rising economic competition. As one noted writer observed, the percentage of indebtedness amongst the white collar employees in Calcutta was higher than in Bombay, Delhi and Madras. See, Benoy Ghosh, 'The Crisis of Bengali Gentility in Calcutta' in *The Economic Weekly*, Vol. XI, Nos. 26, 27 & 28, July 1957, p. 823. However, the most important component of lower middle class was the unemployed educated youth of Bengal who grew in number in the post 1939 period due to inflation, famine, communal riots and eventually, partition of India. See, Marcus F Franda, 'West Bengal' in Myron Winer, *State Politics in India* (Princeton: Princeton University Press, 1968). The slum dwellers who fell under the purview of the Calcutta Municipal Corporation in the 1920s, 1930s and 1940s were the urban poor who emerged as a category in the aftermath of industrial development and urbanization of Calcutta. This category included people from rural Bengal and the Eastern and Northern part of India who came in search of employment with the rise of jute textile and coal industries and the growth of railways, dock and bank facilities. For details see, Nitai Kundu, 'The Case of Kolkata, India' in UN Habitat, *Global Report on Human Settlements: The Challenge of Slums*, Part IV 'Summary of City Case Studies' (London: Earthscan 2003), pp. 195-228.

movement.’⁷⁶Initially undertaken by English philanthropic women interested in social service, it soon passed into the hands of paid female professional visitors. As McCleary further notes, in the absence of a single qualification which could be deemed as essential for the post of health visitor, most females were employed either as sanitary inspectors with sound knowledge of domestic hygiene and sanitation or as trained nurses or certified midwives. In the case of Calcutta, as the Health Officer of the Corporation observed, the Health Visitor was, in some cases, a qualified medical woman. Her responsibility was specifically outlined as to ‘visit and gain the confidence of poor women, and give them simple instructions in elementary hygiene, and to give homely advice as to how to rear their children, etc.’⁷⁷

In the initial years following 1912, imparting scientific training to the dhais formed an important obligation of the female health visitor of the Corporation. Not only were aseptic scissors and dressings distributed to the dhais, instructions on how to apply ligatures and dressings were also provided. In view of the enormous influence exercised by the dhais on all classes of Bengali female population, the need to establish ‘friendly ties’ with them through meetings was recognized by the health visitors. In 1915, a new class of professionally trained midwives, popularly referred to as the ‘corporation midwives’ were recruited by the Corporation for domiciliary midwifery services and placed under the supervision of the female health visitor. The preponderant motive was to expunge the ‘unprofessional’ dhais from the site of birth and reconstitute midwifery into a cohesive professional structure. Despite the initial failure of the corporation midwives to access lower middle class homes due to the alleged reluctance of Bengali females to accept the service of ‘strange midwives’ the scheme slowly began to succeed in limited areas. Within few years the Health Officer confidently noted that ‘more than one-fifth of the babies born in Calcutta were delivered by the corporation midwives.’⁷⁸

In 1916, a demand was made by the Health Officer for an increase of staff for midwifery services to four health visitors and sixteen midwives. A proposal for a ‘complete scheme for the whole town’ was submitted to the Health Committee in a way that underpinned the emerging co-ordination between medical profession and the public health officials. Further,

⁷⁶ McCleary, *The Maternity and Child Welfare Movement*, p.25.

⁷⁷ Crake, *Report of the Health Officer*, 1913.

⁷⁸ Crake, *Report of the Health Officer*, 1915.

emphasizing the need to strengthen control over the midwives, provision for free accommodation of the Health Visitor along with the midwives under her supervision was recommended. The proposal was considered by the Health Committee in June 1916 and according to the Health Officer H.M. Crake, 'immediate steps were taken to give effect to their Resolution.' Consequently, midwives and Health Visitors were provided with accommodation within the same premise in order to enforce discipline and better co-ordination. The number of midwives stood at eight, while the number of Health Visitors was two. Thus, a group of four midwives were placed under the supervision of a qualified Health Visitor, each backed by a maternity centre.⁷⁹

The annual reports of the Calcutta Corporation reveal the institutional expansion of the midwifery services into a 'hierarchical' structure with the corporation midwives at the bottom and the medical professionals at the top. In the process, a layered structure of medical control/supervision over the process of birth came to be instituted. It was based not so much on a gendered demarcation of the sphere of action as it was on consolidating grip over the domiciliary midwives by a professionally superior class of medical professionals and Health Visitors (who too were qualified women physicians in certain instances). To cite an example, in 1919 under the four Corporation run maternity centres that came to supervise the delivery cases, it was reported that most patients with 'abnormal' cases were being transferred to the hospital. However, where patients refused to being taken to the hospital, 'local medical men' were called in. Thereupon, a proposal was made before the Health Special Committee to appoint the 'Lady Superintendent' of the Dufferin Hospital as the Consultant Obstetrician with a normal fee for advice and an increased one for operative intervention of any kind. The Committee responded favourably to the decision.⁸⁰ An arrangement was eventually made whereby the male obstetricians of the Calcutta Medical Club, a private organization of the Bengali doctors, agreed to render assistance to the Health Visitors in an event of complication on the payment of a subsidised fee. Thus, a three layered structure evolved around which the medical profession and public health administration realigned themselves.

The professional structure that was emerging exerted its influence most strongly in instances of pregnancy related complications when medical/surgical intervention became necessary. For instance, Health Visitor Mrs Clarke's diary reveals how the collaborative efforts of the

⁷⁹ Crake, *Report of the Health Officer*, 1916, pp.30-31.

⁸⁰ Crake, *Report of the Health Officer*, 1919, p.45.

midwife and the Health Visitor saved maternal lives in cases of abnormalities such as delivery of twins, protracted labour and ‘adherent placenta and severe haemorrhage.’⁸¹ For instance, in a certain case of delivery of twins, it was reported that the midwife in course of her official visit to one house discovered that a woman pregnant with twins had delivered one child while the dhai was pulling at the protruding hand of the other. While the corporation midwife was initially prevented by the mother’s family from examining the patient who was, by that time, exhausted and wailing, she still managed to inform the Health Visitor of the condition of the suffering mother. At the same time, the midwife also successfully coaxed the family to allow her to examine the patient. The midwife’s timely intervention reportedly brought the Health Visitor to the scene and she thereupon performed ‘version’ and saved the child.⁸²

By the 1920s, five maternity centres had been fully established under the auspices of the Calcutta Corporation. Each of them was provided with telephones in order to ensure ‘prompt attention to night calls’ and ambulance services so that complicated cases could be immediately removed to the hospitals or experts called in on time.⁸³ Yet much of the maternal and infant welfare work of the Corporation involved extension of medical supervision to the homes of the poor and the lower middle class section of the population, the *bustees* (slums), in particular. As the Health Officer pointed out in the annual report, it often entailed conducting delivery in ‘insanitary conditions’, on the ‘*kutcha* floor of the *bustee* huts under the most appalling conditions’.⁸⁴ In this connection, the need for a well-equipped maternity home for the poor and lower middle class Bengali women was earnestly felt. In response to the need, the Buldeodas Maternity Home was established in the northern part of Calcutta in March 1924, more significantly, due to the ‘enthusiasm and persistent advocacy’ of Dr Haridhan Dutt, the chairman of the Corporation. Dutt’s first-hand experience of the maternity and child welfare movement in Bombay and the success of maternity homes in that Presidency caused him to zealously promote the need for similar maternity homes in Calcutta. Hence, the home which was established as a consequence of Dutt’s efforts was a three storeyed building, the first storey being neatly organized into a ‘lofty, well-lighted’

⁸¹ Crake, *Report of the Health Officer*, 1923, p.39.

⁸² Crake, *Report of the Health Officer*, 1923, p.39.

⁸³ Crake, *Report of the Health Officer*, 1923.

⁸⁴ Crake, *Report of the Health Officer*, 1920, p.49.

maternity ward with twenty-two beds, an admission room and a well-equipped labour room with an adjoining sterilizing room.⁸⁵ As the Health Officer of the Corporation later recorded, the scheme for the maternity home was started as an experiment, being the first of its kind in Bengal. By 1932, there were four maternity homes in Calcutta, Buldeodas Maternity Home, Chetla Maternity Home, Kidderpore Maternity Home and lastly, Manicktala Maternity Home.⁸⁶

The Buldeodas Maternity Home within a span of fifteen years was extolled by Dr Sundari Mohan Das as the 'best Corporation Maternity Hospital'.⁸⁷ A comparison of its annual reports for 1924 and 1934 reveals the growing number of labour cases attended, abnormal labour cases handled and obstetric operations performed, including forceps delivery, version and craniotomy.⁸⁸ The first annual report of the Home for the year 1924 revealed the following: the number of 'labour cases' -- 353, 'normal labour'--237, 'abnormal labour' -- 116, 'obstetric operations' --112, forceps delivery--38, versions--16 and lastly, craniotomy -- 5 (apart from these, there were a number of minor operations mentioned such as breech, brow and traverse presentations).⁸⁹ The 1934 report, on the other hand, showed a steady growth in the number of labour cases admitted. It simultaneously recorded a rise in the number and variety of operative interventions that took place. Thus, the number of 'labour cases' admitted was 2,404, 'normal labour cases' - 1,938, 'abnormal labour cases'—466, 'Operations'—270. The report showed a widening of the scope of operative obstetrics by mentioning a variety of surgical measures such as 'forceps', 'evacuation of uterus', 'delivery of normal breech', 'repair of perineum', 'internal version', 'external version', 'episiotomy', 'plugging' and 'replacement of cord'.⁹⁰

An overview of the two annual reports of the Corporation provides insight into how the scope and incidence of surgical intervention in childbirth expanded in a span of ten years. In the years following the establishment of the Buldeodas Maternity Home, the ambit of 'practical

⁸⁵ Crake, *Report of the Health Officer*, 1924, p.39.

⁸⁶ T.N. Majumdar, *Report of the Health Officer of Calcutta*, 1931.

⁸⁷ Sundari Mohan Das, 'Maternal Mortality in Calcutta and Buldeodas Maternity Home', *The Calcutta Municipal Gazette*, March 1939, p.614.

⁸⁸ Crake, *Report of the Health Officer*, 1924.

⁸⁹ Crake, *Report of the Health Officer*, 1924, p.40.

⁹⁰ L.M. Biswas, *Report of the Health Officer of Calcutta*, 1935, p.41.

midwifery' expanded beyond the bounds of the female run Dufferin hospitals and dispensaries. It also managed to lure away patients from the teaching hospitals, a long-standing issue that caused the GMC to withdraw recognition of Indian degrees on grounds of 'defective midwifery training'. Colonel Needham was appointed as an Inspector by the GMC in 1919 with the task of assessing the quality of 'practical' midwifery training imparted by the medical colleges and inspecting the medical examinations conducted by the Indian universities. In his report submitted to the Secretary to the Government of India (Department of Education, Health and Lands) in 1924, the lack of adequate labour cases for practical instructions in midwifery in CMC was partly attributed to the opening of the maternity dispensaries by the Corporation. The Corporation responded by passing a resolution that allowed students to attend, labour cases in their dispensaries, provided they were summoned by the resident obstetrician and the patient gave permission.⁹¹ In 1939 the growing popularity of the maternity homes was attributed to the 'increase of hospital-mindedness of the public', so that 'there is greater and greater demand for admission of emergent labour cases and the beds are filled up to the utmost capacity of the wards, leaving no space for the admission of prospective mothers.' The Buldeodas Maternity Home, in particular, was compared to a 'pilgrim shed rather than a hospital, fulfilling modern ideas of civilization and sanitation.'⁹²

In 1926, the Corporation assumed the responsibility of training the nurses for midwifery services and other subjects. Accordingly, a Nurses' Training Class was instituted. The pupils were selected by the Health Officer on the basis of a preliminary examination in general knowledge. After selection they were instructed by four lecturers appointed by the Public Health Committee. The training class on gaining popularity was eventually affiliated to the Bengal Nursing Council which was brought into being by the Government in 1934 for the recognition of qualified nurses.⁹³

The maternal and child welfare work of the Municipal Corporation served as a model for other institutions, most significantly, the All India Institute of Hygiene and Public Health established in 1934. David Arnold has effectively charted the chequered history of the maternity and child welfare section of the Institute. According to Arnold, lack of colonial

⁹¹ WBSA, Local Self-Government Department, Medical Branch, File 2M-13, Progs, 21-48, Feb 1925.

⁹² Das, 'Maternal Mortality in Calcutta'.

⁹³ Crake, *Report of the Health Officer*, 1928.

state interest and the persistent shortage of finances hindered the effective organization and staffing of that particular section.⁹⁴ Nevertheless, the maternity and child welfare section represented an important step towards training Indian men and especially, women in reproductive health and investigating into the ‘medical causes of infantile mortality and its correlation with the social, economic and environmental factors which influence the death rate.’⁹⁵ It was part of the broader arrangement made by the provincial Governments for training the Indians in public health and providing them with higher diplomas. Such arrangements were made in order to enable the Indians trained in their own countries to become ‘Health Officers of the first class’.⁹⁶

The need for providing ‘specialized’ training to Indians as public health workers was stressed in 1925 by J.D. Graham, the Public Health Commissioner with the Government of India in the following words: ‘This is a work which has to be done for the benefit of the Indians....to be effective it must carry conviction and establish its position against immemorial conservatism and tradition; it must therefore be done by Indians.’ Not only was the involvement of Indians stressed, but the specific need for a ‘careful system of specialized training in institutes or schools devoted to public health teaching and research’ was reiterated.⁹⁷ Graham’s views were shared by John Megaw, the head of the Calcutta School of Tropical Medicine and Hygiene. It soon came to be appreciated by W.S. Carter, Associate Director of the Rockefeller Foundation. Carter’s empathetic intervention and subsequent meetings with the Government of India led to the inauguration of the AIIHPH in 1934. In the wake of the Great Depression of 1929 aggravating financial crises, it was agreed that the Rockefeller Foundation would provide for the building and initial set up of the Institute while the Government of India would pay for its recurring cost of staff and maintenance of the building. ‘Maternity and Child Welfare and School Hygiene’ constituted one of the six sections that were opened along with other sections such as ‘Public Health Administration’, ‘Sanitary Engineering’, ‘Biochemistry and Nutrition.’ It remained one of the sections with a turbulent history of initial neglect and sustained underfunding. The inability of the

⁹⁴ David Arnold, ‘Official Attitudes’.

⁹⁵ *Annual Report of the All India Institute of Hygiene and Public Health (AIIHPH)* (Calcutta: Government of India Press, 1935), p.42.

⁹⁶ *Annual Report, AIIHPH, 1934*, p.9.

⁹⁷ *Annual Report, AIIHPH, 1934*, p.10.

Government to meet the expenses led Graham to eventually stop the funding of the maternity and child welfare section. Consequently, the financial responsibility of the section was taken over by voluntary bodies like Dufferin Fund and the Red Cross Association of India and much later by the Calcutta Municipal Corporation, Calcutta Health Week Committee, the Calcutta Footballers' Association and the Turf Club.⁹⁸

The women doctors of the WMS who were attached to the AIIHPH took responsibility of training students for diploma in maternity and child welfare course (D.M.C.W.) started in 1933 by the Calcutta School of Tropical Medicine and Hygiene. One of the medical women of the senior cadre of the service, Dr Jean M. Orkney was appointed as the Professor of Maternity and Child Welfare in 1934.⁹⁹ In the first year, 70 lectures were recorded to have been delivered on various aspects of maternity and child welfare work, school medical services, infant and child development, child psychology, etcetera. In addition, 180 hours were allotted to field work, administrative experience and other upgraded tasks such as clinical work and research writing. However, within two years, Orkney as the Head of the section lamented the lack of students for the course which led to the course being stalled for a few years. Despite such setbacks, there were a few notable accomplishments of the AIIHPH. The first was the opening of a maternity and child welfare centre in 1935 in ward 8 (north-central part) of Calcutta where the steady increase in clinic attendance was largely due to a strong network of ante-natal, post-natal and intra-natal services. Instituting mother-craft lessons and nursery school formed part of the centre's duties. The second achievement was the introduction of maternity and child welfare scheme in the Clive Jute Mill, also in 1935. It was launched with a view to undertake investigative enquiry into the health and nutrition of women jute mill workers under the industrial conditions and the impact of such conditions on the reproductive functions of the mother and the health of the infant in the first year of birth.¹⁰⁰ It was appreciated in the nationalist press as a 'move in the right direction'.¹⁰¹

The question that remains central to the discussion on maternal and infant mortality schemes introduced by the Public Health Department and Calcutta Corporation is: Was there any

⁹⁸ *Annual Report*, AIIHPH, 1935, p.41.

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ S.B. Ray, 'Maternity and Child Welfare: Neglect in India, A scheme for Calcutta Industrial Areas' *Amrita Bazar Patrika*, 11 December, 1939.

noticeable reduction in the infant and maternal mortality rates in the period between 1910s and 1947? The Calcutta Corporation reports revealed that in the period between 1900-1935, infant mortality rate fell from 443 per 1000 to 239 per 1000. Except for the years 1943-44 and 1944-45, infant mortality rate showed a downward trend. Yet, as the health officer of the Corporation continued to point out, defective registration of births and deaths often accounted for inaccuracies in the calculation of mortality figures.¹⁰² However, infant mortality rates in the rural areas, as shown by the public commissioners' reports in the 1930s and 1940s continued to be high with occasional decline in certain years.¹⁰³ Maternal mortality rates, on the other hand, were published from the 1930s in particular. The Public Health Commissioners noted in 1938 that female death rates for the ages between 15 and 40 years were higher than male death rates which were recognized to be chiefly due to childbearing causes.¹⁰⁴ The infant mortality rate was higher amongst the Muslims than the Hindus in the entire period under review. The Health Officer of the Calcutta Corporation stated in his reports that the observance of purdah was stricter amongst the Muslims than amongst the Hindus which often led to a rejection of medical advice and care offered by western trained health visitors and midwives.¹⁰⁵ This forces one to assume (in the absence of sufficient evidences) that despite the Muslim reformers' attempts to popularise western medical practice amongst the Muslim women, the majority of lower class Muslim women remained entrenched in decadent practices of purdah and hence, were perhaps more resistant to western medicine than the middle class educated Muslim females and the Hindu bhadramahila in general.

The Growing 'Hospital Habit' in the Inter-War Years

In a statistical survey on maternal mortality conducted by Dr Kedarnath Das under the auspices of the Indian Statistical Institute in 1934 in the Eden Hospital which was based on records of maternal deaths for the years 1850-1901 and 1902-1915, an increase in the

¹⁰² M.U.Ahmad, *Report of the Health Officer*, 1946-1947, pp.7-8.

¹⁰³ For instance, infant mortality in 1936 recorded an increase of 9.8% over 1935. In 1937, there was a further 5.8% increase over 1936 mortality figures. In 1938 however, there was a 6.7% decline in the infant mortality rate. See, *Bengal Public Health Report*, 1936 (Alipore, Bengal: Bengal Government Press), p.30; *Bengal Public Health Report*, p.31; *Bengal Public Health Report*, p.34.

¹⁰⁴ *Bengal Public Health Report*, 1938, p.27.

¹⁰⁵ T.N.Majumdar, *Report of the Health Officer*, 1926, p.7.

attendance by 'Bengali Hindu' females was noted. The increased trend of hospitalisation was partly attributed to the rise in population and partly to transformations in the habits of the people, the growing recognition of the importance of hospitals and lastly, the gradual fading away of the prejudices preventing Hindu females from being sent to the hospital for childbirth. Not only complicated delivery, but normal cases were also recorded to have been brought to the hospital. It was further observed that maternal mortality was lower when normal cases were admitted to the hospital. This led to the expectation that the gradual increase in the number of normal cases being brought to the hospital could lead to a 'steady fall' in maternal death rates.¹⁰⁶ The speech delivered by the Governor of Bengal during the opening of a maternity ward at the Howrah General Hospital in September 1937 further clarifies the point. The Governor remarked,

The inauguration of this Maternity Ward to-day has a far wider significance than the opening of a new block of nineteen beds. It marks your recognition of a profound and growing change in outlook on the part not only of women but of men also, for men also have their part to play in seeing that their wives and daughters at this most crucial moment of human life have the benefit of the best that medical science can give. Those who have contributed to this project whether by money or by service have kindled yet another torch to light the path for the rising generation.¹⁰⁷

The popularity of the Buldeodas Maternity Home further demonstrates the extent to which the western medical discourse was internalized by the middle-class, nationalist politicians and medical men and was disseminated to the relatively poorer sections of the Bengali society. As the higher incidence of surgical intervention in the maternity home reveals, the shift in the site of birth from home to hospital gradually 'normalized' operative intervention under proper medical supervision. Within two years of the foundation of the Buldeodas maternity home, Chittaranjan Seva Sadan, another hospital for the lower class women and children, was established on similar principles, although outside the jurisdiction of the Corporation. Its foundation was to celebrate the legacy of Chittaranjan Das, the mayor of the Corporation, following his death in 1925. Guided by the ideology of providing 'relief to the poor and

¹⁰⁶ Kedarnath Das, P.C. Mahalanobis and Anil Chandra Nag, 'A Preliminary Note on the Rates of Maternal-Deaths and Still-Births in Calcutta' *Sankhya: The Indian Journal of Statistics*, Vol.1, No.2/3, May 1935, pp.216-217.

¹⁰⁷ 'New Maternity Ward, Howrah Hospital: Opened by Governor of Bengal' *Amrita Bazar Patrika*, 2 September, 1937.

suffering womanhood and of imparting instructions to women' Das had created a Trust of the whole of his property prior to his death. Following his death, the mediation of Mahatma Gandhi helped raise a hefty sum of eight lakhs of rupees which was utilised to build a women's hospital for the poor and the lower middle class in Calcutta. The history of the hospital from 1927 to 1941 was marked by expansion of the building to start an out-patient department for treatment of women and children and more notably to accommodate more patients. In 1936, a separate paediatric ward was erected under the name of 'Chittaranjan Sishu Sadan.'¹⁰⁸ *Bangalakshmi*, the prominent women's journal noted with pride how each female patient was treated with tenderness and care. The diet and treatment of each patient was reported to have been meticulously taken care of by 'two lady doctors and one experienced Indian matron'.¹⁰⁹

There was a perceptible shift in the ideology guiding the foundation of the latter day maternity homes. Unlike the foundation of the Dufferin chain of hospitals in the 1880s, propelled by the need to absorb purdahnashin women into the colonial medical discourse, the maternity homes established in the wake of the maternity and infant welfare movement in Bengal sought to accommodate women of 'all classes' within the scope of medical science as a form of service to the nation. Neal Edward, while conducting research on maternal mortality in Calcutta for the year 1936, referred to the 'growing popularity of institutional delivery' in the city.¹¹⁰ Apart from the Eden Hospital and the Dufferin Hospitals, other institutions such as the Campbell Medical School, National Medical School, and Calcutta Medical School came to accommodate pregnant women from the middle and lower classes for both obstetric (normal/abnormal labour) cases and gynaecological complications. In 1936, a charitable hospital for women attached to the Ramakrishna Medical College for Women was inaugurated by the prominent women of Calcutta with a view 'that their students might acquire experience in the treatment of patients and their diagnosis.' The hospital was reported to be in demand even before it was formally inaugurated.¹¹¹ In a similar tone, the principal of the Carmichael Medical College complained about the 'great rush for admission into the

¹⁰⁸ Ibid.

¹⁰⁹ Jagjivan Basu, 'Chittaranjan Seva Sadan', *Bangalakshmi*, Vol.2, No.3, February 1927, pp.333-335.

¹¹⁰ M.I. Neal Edwards, *Report of an Enquiry into the Causes of Maternal Mortality in Calcutta* (Government of India: Manager of Publications, 1940), p.34.

¹¹¹ 'Ramkrishna Medical College for Women: Hospital Opened by Mrs.K.C Dey' *Sunday Amrita Bazar Patrika*, 26 April, 1936.

Maternity Wards of the Hospital in spite of the increase in the number of beds lately.....It is becoming increasingly difficult to provide for this daily extra accommodation.’¹¹²

Male and Female Physicians in the Inter-War Years

The participation of medical professionals in the maternal and child welfare work in late colonial Bengal indicates that male and female doctors articulated a similar professional ethos. The need to lower maternal and infant mortality provided a powerful impetus to constitute obstetrics and gynaecology into a more cohesive profession that could not always be rigidly demarcated along gender lines. Yet that did not stop the medical women in India (not just Bengal) from continuing to demand increased professional recognition in the twentieth century. The presumption underlying the initial demands of British women doctors for employment in India in the late nineteenth century was the impenetrability of the zenana that made their intervention appear crucial for saving the lives of purdahnashin women who were otherwise assumed to be averse to seeking treatment from male physicians. In the twentieth century, however, the expansion of modern maternity services necessitated co-ordination between male and female medical professionals on pragmatic grounds and became a professional imperative in the inter-war years.

Despite sharing professional space with their male counterparts, women doctors clamoured for exclusive control of the domain of obstetrics. Kathleen O’ Vaughan asserted in 1911-- precisely at a juncture when medical women’s demands for a Women’s Medical Service in India were about to be fulfilled-- that Indian women preferred to be attended by female doctors than by male ones only if the former were equally competent. ‘Indian’ female doctors would still be more preferable provided they were ‘well-qualified’ and ‘well-educated.’¹¹³ The thrust therefore was not on ‘more doctors’ but s‘better doctors’ with ‘wider medical outlook’ and greater ‘scientific spirit’; women physicians had to ‘keep abreast of modern methods and continually improve their standard of practice.’¹¹⁴ Professional competence was

¹¹² ‘Rush For Admission: Maternity Wards of Carmichael College Hospital’, *Amrita Bazar Patrika*, 9 October, 1936.

¹¹³ ‘Indian Medical Women’, *The Journal of the Association of the Medical Women of India*, Vol.3, No.4, November 1911, p. 15.

¹¹⁴ Editorial, ‘Medical Women and Present-Day Needs’, *The Journal of the Association of the Medical Women in India*, Vol.25, No.4, November 1937, p.43.

thus, cited as one of the pre-conditions for treating more female patients and more significantly, for marginalizing male medical professionals in the domain of obstetrics. This was further backed by the demands of the Indian women's organizations in the 1930s that maternity homes and maternal and child welfare clinics be placed under the exclusive charge of women doctors, health visitors and trained midwives.¹¹⁵

Thus, cultural notions of modesty and seclusion were underscored in upholding the exclusive role of female doctors in obstetrics. Yet the actual treatment rendered by female physicians was not dissimilar to that offered by their male counterparts. Regina Markell Morantz-Sanchez in her in-depth historical study of women physicians in the American medical profession in the twentieth century has noted 'therapeutic similarities' in the treatment rendered by male and women physicians. She states that, 'women physicians were not only women, but physicians as well. As physicians, they operated under the dictates of their profession: they viewed themselves as full-fledged health professionals, they read the same journals as the men, and they subscribed to theories that they believed represented the collected wisdom of their group.'¹¹⁶ Male and female doctors in India also shared similar therapeutic approach, whether in the sphere of preventive and curative medicine or in practising surgical obstetrics.

Recognizing the need for greater co-ordination between male and female medical professionals in obstetrics, the renowned obstetrician from Madras L.S. Mudaliar suggested three ways to do it at the Obstetric section of the tenth All India Medical Conference held in 1934: a) introducing post-graduate training in the subject, b) promoting original 'clinical research' in diseases associated with pregnancy or 'tropical' diseases complicating pregnancy, and c) founding associations that would infuse great interest among the obstetricians and gynaecologists practising the 'twin arts' and promote the profession.¹¹⁷

Mudaliar's endeavours led to the establishment of the Madras Obstetrical and Gynaecological Society in 1934. Bengal followed suit and founded a similar association in 1936. The founding of such provincial professional associations was followed by holding of annual

¹¹⁵ *All India Women's Conference*, Fourteenth Session, p.62.

¹¹⁶ Regina Markell Morantz-Sanchez, *Sympathy and Science: Women Physicians in American Medicine* (New York, Oxford: Oxford University Press, 1985), p.231.

¹¹⁷ L.S. Mudaliar, 'Presidential Address', *Journal of the Indian Medical Association*, Vol.3, No.9, May 1934, pp. 354-359.

Congresses as a means to ‘unite the whole obstetric profession in India in a body to achieve the status and exert influence as it is in other countries of the world.’¹¹⁸ While the first Obstetrical and Gynaecological Congress was organized in the city of Madras in 1936 and the second in Bombay in 1937, the third was held in Bengal in 1941. Not only was the membership of the Society and participation in the Congress opened to both male and female physicians, it was also iterated in the presidential address that in order to ensure efficiency and wide accessibility of midwifery services, ‘the man-midwife—as he was called in derision—has to work in company of a lady-midwife. If both are efficient, if they do their work in harmony, readily and willingly co-operating with each other...they would prove to be benevolent angels to villagers.’¹¹⁹ Female obstetricians and physicians contributed papers at the Congress and enriched the discussion on pathological aspects of pregnancy and on efficient ways of conducting maternity benefit schemes. Their engagement with scientific research on maternal diseases and other aspects of women’s gynaecological health conducted under the auspices of the Indian Research Fund Association or the AIIHPH intensified in the inter-war years and thereafter.

The Limited Success of the Maternal and Infant Welfare Schemes

Existing historical works have amply indicated how the colonial state’s initiatives in matters of women’s reproductive health were largely politically motivated and hence, confined to the working classes in certain organized sectors such as the mines, jute mills and tea plantations. Even in those specific sectors the steps taken in the form of starting a chain of maternity and child welfare centres in the various mills or prohibition of female underground labour in 1929 were far from adequate. Perhaps the only substantial Government intervention came in 1939 with the passing of the Bengal Maternity Benefit Act designed chiefly for the female workers in factories and jute mills. The Act was implemented with the objective of ‘regulating the employment of women in factories’ during certain period before and after childbearing and to provide maternity benefits to them. The Government further elaborated the ‘Maternity Benefit Scheme’ in an official report. It defined the nature of services the female labourers were to have access to such as maternity and child health welfare centres under competent

¹¹⁸ ‘Gynaecological Congress: Calcutta Session-Dr Baman Das Mukherjee elected Chairman of R.C’, *Amrita Bazar Patrika*, 12 March, 1941.

¹¹⁹ N.A. Purandare, ‘Presidential Address’ in Mitra ed., *Transactions*, p.31.

health officers and doctors, baby clinics, mother craft classes, availability of hospitals in tea gardens, supply of milk and food, a certain amount of bonus to the mother during birth etcetera. Similarly, in the rural areas the Government was reported in 1940 to have planned to start maternity and child welfare clinics in each of the six hundred *thanas* (police station areas) that existed in the whole of Bengal. However for such a scheme to take shape, the rural people were to bear half the expenses. As a beginning, the Government took upon itself the task of training the health visitors and raising the standards of dhais whose dominance in midwifery could not be entirely done away with.¹²⁰

Piecemeal efforts to regulate the training and activities of the midwives and provide for their compulsory registration were made in 1934 through the Bengal Nurses and Midwives Registration Act.¹²¹ The Act officially came into force in February 1936. But the inadequacy of the Act in producing sufficient number of registered midwives remained a focal point of criticism in the following years.¹²² Need for adequate Government funding to promote effective dhai training continued to be voiced during the budget discussions in Bengal Legislative Council in the 1940s.¹²³ In 1941 Dr Sundari Mohan Das advised the Government to train the traditional dhais instead of doing away with them completely so that, 'while these women will not be absolutely stranded, the situation created by the paucity of trained midwives will be somewhat eased.' Also it was believed that, 'given a course of training these indigenous dais were likely to turn out quite efficient as the profession, in their case being mostly hereditary, they got something like a natural aptitude for the work, which combined with the training was to give very good results.'¹²⁴ The key idea was therefore to co-opt the dhais into the modern maternal health care system by curbing their autonomy and reducing them to mere appendages.¹²⁵

¹²⁰ *Bengal Public Health Report*, 1940 (Alipore, Bengal: Bengal Government Press, 1942).

¹²¹ Provincial legislation regulating the training and activities of midwives and nurses were passed in eight provinces such as Bihar and Orissa, Bengal, Bombay, U.P, Burma, Madras, Punjab and Central Provinces. The Bombay Act and that of Bihar and Orissa was passed in 1935 while those of U.P and Bengal were passed in 1934. For details see, *Annual Report of the Public Health Commissioner with the Government of India*, Vol.I (Indian Medical Department, 1937).

¹²² Editorial, 'Public Health Organization in India', *Calcutta Medical Journal*, Vol.38, No.8, August 1941, pp. 438-441.

¹²³ Bengal Legislative Council Debates, 16th February, 1940 (Alipore, Bengal: Bengal Government Press, 1940).

¹²⁴ 'Bengal Maternity Services: Deplorable State', *Amrita Bazar Patrika*, 17 April, 1941.

¹²⁵ Krishna Soman's ethnographic study of the Birbhum district of post-colonial Bengal shows the

Condemning Government's apathy, concerned medical men argued that, 'The duties and responsibilities of guardianship of the Nation's children must be shared by individuals and by the State.'¹²⁶ All this led to the appointment of a special committee by the Central Advisory Board of Health in 1937. The committee was assigned the task of drawing up a report on the maternity and child welfare work in India. The report was subsequently published leading to 53 recommendations being made on administration, co-ordination and supervision of maternity and child welfare services including the training of staff.¹²⁷

Following the Report of 1938, a new committee known as the Health Survey and Development Committee popularly referred to as the Bhore Committee was appointed by the Government of India on 18 October, 1943 under the chairmanship of Sir Joseph Bhore. It consisted of 25 distinguished Indian personalities including obstetricians Dr Hilda Lazarus of the WMS and Dr L.S. Mudaliar. Its chief task was to conduct a broad survey of the health conditions in British India and make recommendations for future. It was to be the basis of a 'National Health Plan'. The findings of the Bhore Committee in 1946 confirmed the inadequacy of the existing maternity services in the country as a whole. For instance, the committee found out that the number of practising midwives in the whole of British India was 5000, whereas the actual requirement was that of 100,000 midwives for conducting approximately ten million births in the country on the basis of 'one midwife to 100 births'. In view of the enormity of the task of quickly training a large number of midwives in a short span of time, an 'interim measure' of training the dhais and permitting them to conduct deliveries under 'proper supervision' was proposed. Even the number of health visitors was considered 'inadequate' and the number of women doctors equally insufficient.¹²⁸

The committee recommended the raising of the age of marriage for girls, improving the standard of living and lastly, regulating fertility through self-control. Most of its recommendations were met with protest from the members, while some were not

marginalization of dais in the modern health care system and their reduction to mere appendages. See Krishna Soman, 'Women, Medicine and Politics of Gender: Institution of Traditional Midwives in Twentieth Century Bengal', *Institute of Development Studies*, Occasional Paper 32, November 2011, pp.1-36.

¹²⁶ 'Maternal and Child Welfare Work: Two Lakhs Maternal Deaths a Year', *Calcutta Medical Journal*, Vol.36, No.4, October 1939, pp.302-304.

¹²⁷ Ibid.

¹²⁸ Report of the Health Survey and Development Committee, vol.1 (Delhi: Manager of Publications, 1946), Chapter VI, pp.64-65.

implemented due to the financial incapacity of the Government, a problem which persisted in the post-colonial period. However, as David Arnold has argued, it constituted a more decisive proof of the fact that ‘maternal and infant health had begun to move from margins of public health concerns into the mainstream.’¹²⁹

The indifference of the state to the increasing infant mortality in districts and rural areas was thoroughly condemned in the press in the 1940s. Allegations that the maternity and child welfare scheme had merely touched the ‘fringe’ of the problem continued to be made by nationalist politicians and medical professionals. Mira Datta Gupta, a well-known social activist on women’s issues and also a member of the Legislative Assembly ruefully pointed out that the ‘blackest spots’ in Bengal were the rural areas where ‘poor mothers’ ‘were dying in increasing number unattended and uncared for. Government’s indifference, in her opinion, was the chief cause behind the escalating rates of maternal and infant mortality and hence had to be condemned by all. As late as 1945 the Government was reminded in course of the Bengal Legislative Council debates, of its non-committal approach towards maternal and child welfare work that led to most of the maternity centres and homes being founded at the behest of the local self-governing institutions.’¹³⁰

Lack of Government initiative also led to existing hospitals and maternity wards being left in a state of neglect even when they were highly in demand. Neal Edward’s research on the causes of maternal mortality in Calcutta in the 1930s revealed that, ‘there is no question that the present *demand* exceeds the supply and as a higher standard of maternal care develops, this demand will undoubtedly increase, for the *need* very far exceeds the supply.’ (Emphasis original) Edward went on to recommend that:

The limitations, defects and even danger of small inefficient institutions, whether hospitals or maternity homes, must also be recognized. When such institutions are overcrowded or staffed inadequately, or are without proper arrangements for segregation of septic cases, they may be a source of danger, especially to women in a poor state of health with lowered resistance to infection. Regulations for the supervision and control of such institutions admitting maternity cases are therefore required.¹³¹

¹²⁹ Arnold, ‘Official Attitudes’, p.46.

¹³⁰ Bengal Legislative Council Debates, 17 February 1945 (Alipore, Bengal: Bengal Government Press, 1945), p.282.

¹³¹ Edwards, *Report of an Enquiry*, p.34.

Conclusion

To sum up, the chapter has analysed how midwifery services in Bengal were expanded and reorganized around maternity and child welfare schemes in the inter-war years. It has shown the significance of the nationalist rhetoric of motherhood in the writings of Bengali medical men on maternal and infant welfare. Also concerns for racial degeneration played pivotal role in opening up new and more patriotic ways of reconceptualising the importance of maternal and infant health in the growth of nation, although the solution was sought in medical terms, by expanding the limits of professionalized obstetrics. It led to professional supervision and institutional delivery being perceived as less hazardous ways of giving birth and preventing unnecessary wastage of infant and maternal life.

The chapter has highlighted the key players in the domain of maternal and infant health in Bengal: the Calcutta Corporation and the district municipalities, voluntary bodies like the Red Cross Society, professional bodies like the Bengal Obstetric and Gynaecological Society and newly established public health training institutions like the AIIHPH, all of which were outside the orbit of direct Government control. In the process, the chapter has brought out the fragmented and apathetic nature of Government initiative in promoting maternity and child welfare programmes.

Despite lack of state support causing much of the maternity welfare work being undertaken by the voluntary bodies and municipalities, the fact remains that by the 1940s, midwifery and modern maternity services had expanded in the city of Calcutta and adjoining districts. They had broadened enough to accommodate more patients from all classes into a burgeoning number of maternity homes and hospitals under the supervision of health professionals. And then, more importantly such medical services were extended to the slums and lower middle class enclaves in Calcutta. Thus, the popularity of institutional delivery in Bengal can be clearly traced to this period.

While inaugurating a maternity and child welfare exhibition by the Calcutta Corporation in 1941, an eminent medical man from Bombay, Mangaldas V Mehta, remarked that opening maternity homes for the medical assistance of pregnant women or training the indigenous dhai constituted the initial step in the Maternity and Child Welfare movement. The more comprehensive programme would entail eradication of prejudices and ignorance among the masses through proper education. Mehta therefore, proposed to focus on the 'preventive' side

of obstetrics as the more advanced step in maternity and child welfare work. This, according to him was 'pre-natal' care which formed the essence of the preventive side of obstetrics and the most potent instrument to combat maternal and infant mortality.¹³² The next chapter will therefore, analyse how the doctrine of ante-natal care was appropriated by the medical profession in Bengal to redefine the nature of its control over the birthing process

¹³² 'Maternity and Child Welfare' *Amrita Bazar Patrika*, 12 April, 1941.

Chapter Four

The 'Care-Givers': Ante-Natal Care in Bengali Public Discourse and Practice 1860s-1940s

This chapter will examine the extent to which concerns for maternal and child welfare expressed by the public health administration, the medical profession, the nationalists and the women's organizations enabled the idea of ante-natal care to gain a toehold in Bengal in the inter-war years and thereafter. The genesis of ante-natal care has been sought in the redefinition of maternal and infant mortality as a 'social problem' in early twentieth century England and other parts of Europe.¹ In the case of Bengal, debates over the impact of maternal and infant mortality on the future of the nation and Bengali race crystallised around humanitarian, nationalist and eugenic concerns from the beginning of the twentieth century. By the end of the First World War infant mortality was being presented in the Bengali popular print media as a potent social and national problem. Indigenous middle class initiative was instrumental in starting a wide array of maternal and infant welfare schemes such as baby welfare shows, health exhibitions and midwifery classes in various districts of Bengal. On the official side, albeit outside the ambit of direct Governmental intervention, the attempts of Calcutta Corporation and the Public Health Department in experimenting with various maternity and infant welfare measures led to an expansion of modern maternity services that included ante-natal care as one of the vital components.

The growth of the idea of ante-natal care in Bengal, as the chapter will argue, was inextricably linked to similar developments in England, although it diverged and developed its own trajectory that was largely determined by the socio-economic realities of a colonial state. Ante-natal services in Bengal were initiated by the Calcutta Corporation in 1912 in the form of home-visiting by the female health visitors attached to it. In the inter-war years, the scope of ante-natal care was expanded by voluntary bodies like the Indian Red Cross Society, Bengal Social Service League and the All India Institute of Hygiene and Public Health which started ante-natal clinics in certain enclaves of Calcutta and in the process, shared much of the burden of spreading the idea of ante-natal care to Bengali women across class and religious divides.

¹ Ann Oakley, *The Captured Womb: A History of the Medical Care of Pregnant Women* (Oxford and New York: Basil Blackwell, 1984), p.25.

Reviewing the progress of obstetrics in the first half of the twentieth century, R.W. Johnstone, an emeritus professor of midwifery at the University of Edinburgh commented that of all the significant accomplishments in the domain of obstetrics such as the discovery of sulphonamides and penicillin, improvements in the methods and results of Caesarean Section and the triumph over puerperal fever, 'the growth of the idea of ante-natal care has been the most pervasive influence, and has worked the most widespread changes in the obstetrical outlook.'² Johnstone further stated:

One line along which midwifery has been enormously improved by the ante-natal idea is in the practice of the principle of physical examination of the pregnant woman from both the medical and the obstetrical points of view. Abdominal palpation of the presentation and position of the child in the later weeks of pregnancy, investigation of the capacity of the pelvis...routine examination of the heart and lungs...and the regular examination of the urine—all these are innovations of this century. The almost religious attention that is now paid to the diet of the pregnant woman is an outcome of ante-natal care.³

Ante-natal care was designated as 'the new midwifery' by the medical profession in the early twentieth century. In the broadest sense ante-natal care meant preserving the health of the expectant mother throughout the phase of pregnancy in order to ensure the safe delivery of a healthy child. In more strictly medical terms however, it signified identification of abnormalities or illnesses during pregnancy and addressing those abnormalities through suitable and timely medical intervention. Dr J.W. Ballantyne whose claim to fame chiefly lay in the espousal of the idea of ante-natal care described it as a new way of looking at old things, a 'new view point' that brought about 'momentous' changes in obstetrics practice.⁴ Johnstone was also referring to a 'new outlook' in the professional growth of obstetrics that sought to extend medical control over women's bodies through 'physical examination' of her vital organs.⁵

² R.W. Johnstone, 'Fifty Years of Midwifery', *The British Medical Journal*, Vol.1, No.4644 (Jan.1950), p.12.

³ Johnstone, 'Fifty years', p.13.

⁴ J.W. Ballantyne, 'An Address on the New Midwifery: Preventive and Reparative Obstetrics' *The British Medical Journal*, Vol.1, No.3250, April 1923, pp.617-621.

⁵ Johnstone, 'Fifty years', p.13.

Johnstone's prioritisation of ante-natal examination of pregnant women's bodies as an essential component of ante-natal care led him to consider W.S. Playfair's popular treatise 'Science and Practice of Midwifery' (1898) as inadequate. Playfair's book was said to have lacked any direct allusion to ante-natal examinations such as diagnosis of the position of the child by 'abdominal palpation', assessment of the pelvic capacity of the pregnant woman or the routine testing of her urine.⁶ The fact that the textbook had 'two paragraphs' on control of constipation and 'value of proper corsetry' and also several chapters on diseases of pregnancy, meant little to Johnstone and were, in fact, considered insufficient for removing public apathy on the value of ante-natal care. In recent times, medical sociologists have equated the rise of ante-natal care with the ascendancy of 'medical hegemony' over birth and the manner in which female body was slowly subjected to medical 'gaze'.⁷ According to W.R. Arney for instance, 'monitoring' of the health of the parturient woman empowered obstetrics to transcend the conventional boundaries of abnormal/pathological birth and extend its supervision over normal births as well.⁸

This chapter will however argue that ante-natal care in colonial Bengal was predominantly about providing guidance to expectant mothers regarding preservation of health through proper diet, clothing, exercise and rest that fell more under the purview of public health administration and voluntary organizations like the Red Cross Society than under medical professionals *per se*. In other words, it had less to do with medical hegemony being established over pregnancy. It was rather perceived as a cheaper and yet more effective alternative to doctor supervised hospital based care.

Ante-natal care represented the preventive side of obstetrics. The rise of 'organized preventive medicine' in England between 1875 and 1900 enabled the expansion of public health movement through sanitary reforms, supply of pure water, food, public vaccination, quarantined treatment for infectious diseases, supervision of slaughter houses, and lastly a number of housing and town planning acts and factory legislation.⁹ The idea of preventive

⁶ Johnstone, 'Fifty years', p.13.

⁷ W.R. Arney, *Power and the Profession of Obstetrics* (Chicago and London: Chicago University Press, 1982), p.100. Also see Elaine Papps and Mark Olsen, *Doctoring Childbirth and Regulating Midwifery in New Zealand: A Foucauldian Perspective* (Palmerstone North: Dunmore Press, 1997).

⁸ Arney, *Power and the Profession of Obstetrics*, p.8.

⁹ Arthur S. Macnalty, 'Britain's Development of Preventive Medicine', *Canadian Journal of Public Health*, Vol.35, No.1, January 1944, pp.10-15.

medicine profoundly influenced the profession of obstetrics especially with regards to the challenge posed by increasing rate of infant mortality. The answer was sought in ante-natal care. However, systematic provision for ante-natal care in England was ensured for the first time through the Local Government Board Circular issued in 1914. That measure underscored the State's interest in motherhood in providing medical supervision to pregnant women from conception.

More specifically, the origin and advocacy of the concept of ante-natal care are usually ascribed to John William Ballantyne, a student of the University of Edinburgh and later an assistant physician at the Edinburgh Royal Maternity Hospital (1900-1919) and also the president of Edinburgh Obstetrical Society. G.F. McCleary, a senior medical officer in the Ministry of Health (England) and also the principal medical officer of the National Health Insurance Commission, considered Ballantyne to be the 'greatest authority of his time on ante-natal pathology, and by many is regarded as the founder of that department of medical science.'¹⁰ Ballantyne's deepening interest in the well-being of the foetus encouraged him to consider whether or not it was feasible to prevent foetal abnormalities by treating the mother during pregnancy. In 1901, he pleaded for a pre-maternity hospital. In the same year, Ballantyne took over the ante-natal clinic attached to the Edinburgh Royal Maternity Hospital which was then endowed with one bed (the Hamilton Bed) for the study of the diseases of pregnancy and was henceforth, described as the 'forerunner of ante-natal ward in every modern maternity hospital.'¹¹ Ballantyne further contributed to the maternity and child welfare movement by publishing the first volume of 'Manual of Ante-natal Pathology and Hygiene' in 1902. In 1913, he convinced the Royal Maternity Hospital to extend its services to 'home-visiting' of expectant mothers through pre-maternity nurses attached to the hospital. In 1915, an ante-natal centre was started under the supervision of the hospital called 'The Infant and Pregnancy Consultation for Expectant Mothers'. Several such ante-natal clinics proliferated in the aftermath of the First World War when national anxieties over the deterioration of physical health shifted public opinion towards safeguarding maternal health as the first step towards ensuring the birth of healthy children.

In England, Ann Oakley has pointed out how in the first forty years of the history of evolution of ante-natal care, hospital-based ante-natal care was marginal as the bulk of the

¹⁰ G.F. McCleary, *The Maternity and Child Welfare Movement* (London: P.S King & Son Ltd, 1935), p.50.

¹¹ Johnstone, 'Fifty years', p.13.

work was organized and provided by the municipal bodies. It was chiefly the working class women who benefitted from municipal ante-natal services. The dominance of municipal authorities in providing ante-natal care was enabled by the passage of the Maternity and Child Welfare Act of 1918. Within the second decade of the twentieth century, ante-natal work began to take shape in Australia and in the United States of America as well.¹²

So far as Bengal was concerned, the first part of this chapter will analyse the major discursive strands around which the idea of ante-natal care took shape there. Examining the writings on ante-natal care in the Bengali popular print in the late nineteenth and early twentieth centuries, it will demonstrate how the nineteenth century Bengali writings, which were essentially non-medical in nature and constituted simple suggestions on care of pregnant women were replaced in the twentieth century by more complex advices that subtly underscored the pathological character of pregnancy and conveyed such notions in nationalist terms. The second major strand around which the idea of ante-natal care crystallised in India was obstetric research on maternal morbidity and mortality that focused on the various diseases associated with pregnancy and insisted on the importance of ante-natal care in detecting such diseases and eliminating them by timely and judicious medical intervention. The second part of the chapter will critically assess the nature of such ante-natal work undertaken in Bengal in the inter-war years.

The Idea of Ante-Natal Care in Bengali Popular Print Media in the Late Nineteenth Century

Concerns for the health of expectant mothers emerged as part of the self-improvement drive of the western educated Bengali middle class (bhadralok) from around the second half of the nineteenth century. Chapter one has indicated how the western educated bhadralok's engagement with science and modernity led them to embrace a rational/scientific approach to some of the vital aspects of private sphere such as domesticity, conjugality, health, motherhood, child bearing and child rearing. Midwifery and women's health figured as crucial areas of reform from the 1860s, being seen as central to the task of modernizing and enlightening women. No wonder the earliest reference to ante-natal care of women during pregnancy could be noticed in print media around the same time. In a series of articles on midwifery entitled '*Dhatribidya*' published in *Bamabodhini Patrika* in 1867 and 1868, an

¹² Oakley, *Captured Womb*.

essay entitled *Garbhabasthyay prasutir Susrusa* (Care of Pregnant Women) advised pregnant women on how to manage their own health during pregnancy. Such ‘advice’ literature for pregnant women came into circulation in England from the 1830s. Prominent works included P.H Chavasse’s *Advice to a Wife on the Management of her own Health* (1832) and Thomas Bull’s *Hints to Mothers for the Management of Health during the Period of Pregnancy and in the Lying-in Room* (1837).¹³ The instructions given to the expectant mother in the advice manuals of nineteenth century England influenced the early Bengali writings on ante-natal care.

The essay ‘*Garbhabasthyay prasutir Susrusa*’ (1867) represented one of the earliest attempts to explain the impact of maternal health on the survival of the foetus. It emphatically stated that in ‘the improvement of the mother’s health lies the improvement of the foetus, in her distress lies its distress, in her strength lies its strength, her nutrition nourishes the foetus, her blood sustains it, her life nurtures its life, her death therefore cannot keep the foetus alive for a long time...such is the connection of the mother with her child’¹⁴ Like the advice manuals of nineteenth century England, the essay was devoid of technical terms and did not mention the need for medical supervision of the expectant mother. It was rather a lucid exposition of certain rational principles that an expectant mother was advised to follow in order to ensure safe delivery of the child. It insisted on proper clothing, diet, and intake of fresh air, physical exercise and the importance of sound mental health during pregnancy. It advised wearing of loose garments in order to facilitate unimpeded supply of blood to the foetus. Also, nutritious and easily digestible food was recommended. Indigestion and intestinal complications arising out of consumption of spicy food were felt to jeopardize the life of the foetus. In this connection, the essay approved of the celebration of the age-old Bengali custom of *saadh* on a certain auspicious day in the ninth month of pregnancy. *Saadh* was celebrated with the intent of pampering the palate of the expectant mother with a choice of her favourite delicacies a few days prior to the onset of labour.

Yet another interesting article that appeared in 1892 in the women’s magazine *Paricarika*, dwelt on care of women during pregnancy by stating that the psychological and physical state of the mother nurtured the body and mind of the child. Pregnancy, according to this article had always been regarded by the ordinary people as the time of ‘thousand dangers’.

¹³ Oakley, *Captured Womb*, p.12.

¹⁴ ‘*Dhatribidya: Garbhabasthyay Prasutir Susrusa* (Midwifery: Care of Pregnant Women)’, *Bamabodhini Patrika*, Vol.3, No.51, Nov.1867, pp.616-619.

Anticipating such dangers, pregnant women were advised to adopt certain precautionary measures in terms of diet, bath, exercise and rest. There was, however, no mention of the diseases associated with pregnancy.¹⁵ The overarching theme was preservation of the general health of the expectant mother which was deemed crucial for the well-being of the foetus. Such writings were largely non-medical in approach and content. Hence, they did not overtly insist on medical supervision and physical examinations of the expectant mothers.

However, advice manuals for the care of pregnant women did not appear in large numbers in the nineteenth century. Reference to ante-natal care of pregnant women was absent in Annada Charan Khastagir's seminal work, *Manabjanmatattva, Dhatribidya, Nabaprasut sisu o Strijatir Byadhi Sangraha* (A Treatise on the Science and Practice of Midwifery with Diseases of Women and Children) published in 1868. Essays on post-natal care of women under such titles as *Anturghar e prasutir Susrusa* (Care of the mother after childbirth) were, however, more frequently published and continued to appear, from time to time, in *Bamabodhini Patrika*, *Bharati* and *Antahpur*. They chiefly consisted of instructions on proper diet of the mother soon after delivery, on hygiene, cleanliness and tips on infant feeding including breast feeding. In the whole new genre of literature on infant rearing that came into circulation in the late nineteenth century, discussions on ante-natal care found only sporadic mention.

Scientific treatises on midwifery, written by male licentiate doctors in Bengali language began to be published in the 1870s and 1880s. While such textbooks mostly lacked in any direct allusion to ante-natal care, Haranath Ray's *Dhatri-siksha Samgraha* (Midwife's Vade-Mecum) published in 1887 contained an elaborate section on the diet of pregnant women under the title *Garbhinir pathya o svasthya vijnan* (Diet of pregnant women and health science). Basing his argument on the research findings in European laboratories, Ray stated that the diet of pregnant women should be free of 'earthy' and 'bony' substances which were likely to harden the pelvic region and obstruct the smooth passage of the child during delivery. Thus, Ray proscribed the consumption of wheat, meat, dairy products and excessive salt. Instead a balanced diet of vegetables and fruits suiting Bengali conditions was recommended and 'distilled' water was prioritised over tap water. Drawing on his reading of Thomas Bull's advice manual, Ray discarded the age-old belief that overfeeding of the expectant mother provided nourishment to the foetus. He also denounced the custom of *saadh*

¹⁵ 'Grihasiksha :Matrigarbha (Home Education:The Womb of a Pregnant Woman)', *Paricarika*, Vol.14, No.11, February, 1892, pp.252-254.

which, in his opinion could damage the health of the expectant mother by causing vomiting, digestive ailments and constipation. Ray prescribed daily bathing in cold water which would soften the perineum and alleviate breast pain. He finally argued that, 'It is undoubted that pain during labour is a part of the process and hence an act of nature. However, it is also logical to make sure that labour itself should not become protracted and painful.'¹⁶ Ray's comment thus vaguely alluded to the 'preventive' side of obstetrics and the way it could avert any possible danger during labour.

Ante-Natal Care in the Nationalist Discourse

At the turn of the century, the idea of preventive medicine influenced the Bengali medical profession in analysing public health problems. In this context, it is cogent to quote the objectives of a prominent health magazine *Svasthya Samachar* as vividly outlined by the editor Dr Kartikchandra Basu in its inaugural issue published in 1912. It stated,

The domain of health is vast and with the advancement of science, it is also acquiring progress with each passing day. In contemporary Europe and America, preventive medicine is being extensively discussed as an important branch of medical science and is being taught to the lay public through easily readable books, contemporary newspapers and lectures. Our country also has a rich tradition oftreatments initiated by Caraka, Susruta and other illustrious medical men, but they have barely been disseminated to the general public. Most of them are confined to the books. On the other hand, with the progress of time, there has been a lot of transformation in our country. The arrangements put in place three thousand years ago by the wise Aryan hermits of the Himachal are not easily attainable by the civilized people of the twentieth century.....Hence, this magazine is published with the aim to ensure that the basic principles of health management and means to resist disease founded on an awareness of the Eastern and Western medical principles should reach a wider reading public so as to enable them to safeguard their health as well as the health of others. This

¹⁶ Haranath Ray, *Dhatri-Siksha Samgraha* (Midwife's Vade-Mecum) (Calcutta: Bengal Law Report Press, 1887).

magazine, will therefore, publish extensive discussions on discoveries of new theories and facts about health in different parts of the world.¹⁷

Here the author's insistence on the importance of 'preventive medicine' was an echo of the international medical opinion promoting its centrality in reducing mortality rates. In the years following 1914, Western medical science and technology in bhadralok imagination were no longer directly associated with the colonial structure *per se* but instead came to be identified with modernity and the reconfiguration of the emerging nation.¹⁸ Quite predictably therefore, *Svasthya Samachar* which essentially targeted the middle class readership in Bengal reflected a commitment towards broadening the horizon of the readers through publishing national and international accomplishments in medical research and discoveries. It was this growing cosmopolitanism that shaped a new outlook of the Bengali medical profession towards pregnancy and childbirth, reflected in the textual spaces of the health magazines.

In England, at the turn of the century, ante-natal care was considered a vital part of preventive obstetrics. Eugenics broadly defined as the 'well-being of the race' provided a powerful context for recognizing 'the value of the *potential* mother and her *unborn babe* as a *national asset*. (emphasis mine)¹⁹ One of the broader purposes of eugenics was prevention of the birth of 'weaklings' and 'unfit' children. Ante-natal care, in this sense, was expected to prevent the 'extermination' of babies and ensure a process of rectification of 'unfitness' through 'ameliorating' it ante-natally.' The spotlight was hence on 'ante-natal' pathology. It was argued that, 'ante-natal pathology being the subject which deals with foetal diseases, embryonic deformities...must play an important part in any attempt to ensure ante-natal hygiene. To prevent the production of the unfit it is manifestly necessary that we learn the causes of their unfitness and their mode of action.'²⁰ Thus, the necessity to 'unravel the pathological mysteries' of diseases associated with pregnancy was beginning to be perceived as an important social and medical obligation of the medical profession from a eugenic standpoint. To cite an instance, eugenic considerations inspired one Dr Amand Routh of the

¹⁷ Dr Kartik Chandra Basu, 'Suchana (Beginning)', *Svasthya Samachar*, Vol. 1, No. 1, April-May 1912, pp.3-4.

¹⁸ David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley, Los Angeles and London: University of California Press, 1993), p.294.

¹⁹ Amand Routh, 'Observations on the Toxaemias of Pregnancy, and on Eugenics from the Obstetrics Standpoint' *The British Medical Journal*, Vol.2, No.2740, July 1913, pp.17-20.

²⁰ 'Some Economic Aspects of Ante-natal Pathology' *The British Medical Journal*, Vol.1, No.2060, June 1900, pp. 1547-1548.

Charing Cross Hospital in London to undertake an investigation into the nature of 'toxaemias' during pregnancy in 1911.²¹ Such ideas echoed in the writings of Bengali medical men as well.²²

Publications on ante-natal care in Bengali popular print remained few in the early decades of the twentieth century. Concerns for health of the infant as the foundation of a strong Bengali race drew cogent connections between maternal health and infant mortality. Early twentieth century popular health magazines addressed such concerns by highlighting the debilitating impact of maternal diseases on infant health. Consequently, maternal diseases or diseases associated with pregnancy became an important part of the discussion on ante-natal care. To cite an example, an article entitled '*Garbhinir Kartabya*' (Duties of a Pregnant Woman) published in *Svasthya Samachar* in 1916 marked a subtle departure from the nineteenth century writings in its emphasis on pathologies associated with pregnancy and the importance of prior medical consultation in averting infant mortality and damage to the unborn foetus. It explained the possibility of infants inheriting physical weakness from their mothers who might have been afflicted with liver ailments or respiratory troubles during pregnancy. It provided hints on heart ailments and symptoms of kidney diseases such as swelling of feet that could surface during pregnancy and endanger the life of the foetus. It also highlighted the importance of medical intervention in correcting 'pelvic deformities'. The article also urged Bengali women to shed their modesty for the greater benefit of the unborn child and seek the assistance of a doctor in cases of illness.²³ The most perceptible feature of the article was, therefore, its insistence on medical consultation.

The need to guide the expectant mother during the puerperal period continued to be articulated in Bengali health journals throughout the second decade of the twentieth century. The elderly women of the household, the 'experienced' mother-in law in particular were appreciated for guiding the young daughter-in law on the commencement of her pregnancy through a careful selection of her diet, domestic work and watching her physical movement within the household and contact with her husband. Young expectant mothers were admonished for their reluctance to follow health rules. European women were idealised as the bearers of modernity and lauded for their commitment to a disciplined and healthy lifestyle.

²¹ Routh, 'Observations on the Toxaemias of Pregnancy'.

²² Editorial, 'Mother and Child—Their Health', *The Calcutta Medical Journal*, Vol.9, 1915, pp.79-81.

²³ '*Garbhinir Kartabya* (Duties of a Pregnant Woman)', *Svasthya Samacara*, Vol.5, No.12, 1916, pp.333-340.

Like her European counterpart, the Bengali woman had to be aware of the importance of protecting the foetus in its 'pre-natal existence'.²⁴

At the peak of nationalist movement in the 1920s and 1930s, western scientific knowledge was often disseminated by emphasizing its similarities with the indigenous medical traditions. Such propensities became evident in the writings of Bengali medical professionals. An example of this is Girindra Krishna Mitra's '*Prasuti o Santan*' (Pregnant Woman and the Infant) published in 1929. Having received his higher education in Dublin, Mitra was inspired by the progress of ante-natal care in the United Kingdom and in other Western countries and drew upon the works of Truby King and F.J Browne.²⁵ Yet being aware of the force of nationalism in the cultural discourse of the Bengalis, Mitra couched his argument in nationalist terms.²⁶

The explanatory framework of Mitra's text was grounded in bringing together western medical discourse and the Ayurveda tradition redefined as national in the nationalist phase. Scholars have argued how attempts to impart professional and scientific status to Ayurveda was an essential part of the nationalization of indigenous medical tradition, a part of the process of carving out a national cultural identity during the heights of national movement in colonial India.²⁷ Thus, Mitra's text underscored the importance of routine physical examination of women during pregnancy by referring to the existence of similar prescriptions in Caraka's Ayurvedic formulations 2500 years ago. It indicated how Caraka's Ayurvedic treatise contained a section on care of pregnant women in matters of diet, clothing

²⁴ For instance see, '*Garbhabasthyay Satarkata* (Caution During Pregnancy)', *Svasthya Samacara*, Vol.9, No.9, December 1920, pp.204-207.

²⁵ Dr Frederick Truby King was a New Zealand based health reformer and the founder of the Plunket Society (1907) for the promotion of health of women and children. King made ante-natal care in New Zealand 'fashionable' by persuading women of 'high society' to attend maternity clinics. See Lawrence D. Longo and Christina M. Thomsen, 'Prenatal Care and its Evolution in America' in Philip K. Wilson ed., *Childbirth: The Medicalization of Obstetrics: Personnel, Practice and Instruments* (New York and London: Garland Publishing House, 1996), p.168. Francis James Browne (1879-1968) was an Irish obstetrician who worked with Ballantyne in Edinburgh in the post 1918 years, served as the first professor of obstetrics in the University College Hospital, London and later moved to Sydney. Browne's interest chiefly lay in ante-natal and post-natal care on which he wrote extensively till his death. Browne's books on ante-natal care were widely read by medical students and were used in the works of Bengali doctors trained in the United Kingdom and other European countries.

²⁶ Girindra Krishna Mitra, *Prasuti O Santan* (Calcutta: Bengal Publishing Home, 1929), Introduction.

²⁷ See for instance, Poonam Bala, "'Nationalizing Medicine: The Changing Paradigm of Ayurveda in British India' in Poonam Bala ed., *Contesting Colonial Authority: Medicine and Indigenous Responses in Nineteenth and Twentieth Century India* (Maryland: Lexington Books, 2012).

and general health. Mitra's text also referred to the minor diseases of pregnancy such as constipation, nausea, indigestion, swelling of feet, skin diseases and major problems like eclampsia and presence of albumin in urine. It explained the importance of examination of urine in order to detect the presence of albumin and advised medical consultation in case of albumin being found in urine. The text also prescribed the appointment of a midwife or physician immediately after conception (*garbhadhan*). The moot point of the text was,

Pregnancy is a natural process, but it *demands adequate medical supervision*. The health of the mother and the child within depends a lot on proper nurturing. The pressure is mostly on liver, kidney, heart and other organs for the nutrition and sustenance of the foetus....if one of the organs stops functioning properly, it harms the health of the mother and hence weakens the foetus. If proper care is taken, 90% of the mothers can be liberated from diseases and hence, can give birth to healthy and strong children. (Emphasis mine).²⁸

The middle class women's groups in Bengal too highlighted the educational component of ante-natal care but also at the same time, brought home the importance of medical supervision during pregnancy. Magazines like *Bangalakshmi*, which was published from the 1920s, assumed a central role in articulating middle class feminist consciousness in Bengal. *Bangalakshmi* contained instructive essays on care of pregnant women. One such essay, entitled, '*Garbhinir Gyatabya*' (Things an expectant mother should know) began with the assertion, 'Pregnancy and Childbirth are the two most defining events in a woman's life. In this state, there is danger at every step. Hence, it is important to be careful and cautious. It is important to know the rules that should be followed during pregnancy, especially by women themselves, but that does not mean that doctor or midwife should not be consulted at all.' It prescribed proper course of diet and bath for pregnant women, also advising extra precautionary measures in the last three months of pregnancy.²⁹

Baby shows became a regular medium through which ante-natal and post-natal advices on maternal health and infant rearing were disseminated to the mothers, although its popularity was questionable at all times. At the All India Baby Week Conference held in Calcutta in 1924, Dr V.B. Green Armytage, the professor of midwifery and gynaecology at the CMC,

²⁸ Mitra, *Prasuti O Santan*.

²⁹ For instance, *Bangalakshmi* published articles on ante-natal care in the 1920s. See for instance, Miss Hansa, '*Garbhinir Gyatabya* (Things a Pregnant Woman should know)', *Bangalakshmi*, Vol.2, No.4, 1926, pp.130-132.

explained the importance of ante-natal care as the ‘new midwifery’ in obstetric practice. Green-Armytage redefined the instrumentality of an event like baby week in promoting ante-natal care in the following words,

the title *Baby Week* infers a greater item, namely *babies before birth*, for we must do something radical to stem the fearsome maternal and child mortality and morbidity in India, and this *something* is what is designated as the *new midwifery*. It is no use catering alone for the sick child after it is sick, or after it has been born into the world of a sickly mother—your baby clinics do that and do it well; but what we must do, is to develop a far, more important scheme, that of *ante-natal care*. (Emphasis original).³⁰

At the Baby Week Conference, Green-Armytage distributed a diagram of the female anatomy in parturient state which he had drawn with the assistance of the Baptist Mission Press. Entitled ‘A Scheme of Enquiry for the Prevention of Troubles in the Expectant Mother and Neo-Natal Infant’, the diagram was a detailed exposition of the various illnesses associated with pregnancy. It was intended to guide the training of voluntary health workers whom he termed female ‘Sherlock Holmes’ whose duties were to assume the role of ‘sleuth-hounds’ in locating and preventing diseases and accidents during pregnancy. Further, with the help of the diagram Green-Armytage demonstrated how the ante-natal detection of contracted pelvis of the expectant mother at an early stage of pregnancy was crucial in deciding upon a timely caesarean section which could save both maternal and infant life. Ante-natal care also included the task of discovering a history of difficult labour or miscarriage and also finding out whether the baby was a breech instead of being a head presentation.³¹

Green-Armytage advocated propaganda, efficient training of the female health workers and co-operation between the female health workers and the doctors as the three chief ways to assist the Bengali mothers in shedding inhibitions and seeking medical care during pregnancy. Towards the end of the 1920s, Green-Armytage went on to incorporate a chapter on ante-natal care and also an ante-natal chart in the appendix in his popular textbook for medical students entitled *Tropical Midwifery: Labour Room Clinics* which was published in 1928.³² The central theme of the chapter was diet of the pregnant women which according to

³⁰ V.B. Green Armytage, ‘Ante-Natal Care’, *The Indian Medical Gazette*, Vol.59, August 1924, pp.415.

³¹ Green-Armytage, ‘Ante-Natal Care’.

³² V.B. Green-Armytage, *Tropical Midwifery: Labour Room Clinics* (Calcutta & Simla: Thacker, Spink & Co, 1928).

Green-Armytage was 'of immense importance in the prevention of disease in both mother and child.'³³

From the 1940s, Bengali medical professionals utilised nationalist press as a platform to argue in favour of ante-natal care by citing eugenic concerns and national welfare. Dr Subodh Mitra wrote in *Amrita Bazar Patrika*, 'If prevention is supposed to be the best remedy, it should be instituted at the very root, and thus a system of "constructive" hygiene may be developed for the raising of a new generation.'³⁴ Thus, 'proper' diet, clothing and hygiene for pregnant women were prioritised while the tendencies to eliminate abnormalities by operative interference were denounced. It was argued that the 'obstetrician should not seek recognition or praise for the dexterity with which he has interfered.'³⁵

The economic constraints of Bengal administration were amply recognized by the Public Health officials in arguing for cheaper ante-natal and post-natal services for pregnant women. In this connection, A.C. Chatterjee, the director of Public Health in Bengal argued in 1941 that:

It is far more desirable and economical if the vast majority of normal labour cases could be delivered at home. Pregnancy is a normal physiological function of a woman and *if proper health education is imparted to every woman and adequate ante-natal attention could be given to the expectant mothers there should be no difficulty in her going through the experience in her own home, in which case only domiciliary midwifery services may be required....maternity homes and maternity hospitals are necessary but they should be more in the form of insurance rather than as a place where every pregnant woman should go as a matter of routine for delivering her child.*³⁶ (Emphasis mine)

The focus was therefore on a scheme in which the bulk of 'normal' deliveries would ideally take place at homes under the guidance of health visitors and trained midwives while only complicated cases would be 'timely' shifted to the hospitals.

³³ Green-Armytage, *Tropical Midwifery*, p.1.

³⁴ Subodh Mitra, 'Ante-Natal Care', *Amrita Bazar Patrika*, 13 April, 1941.

³⁵ Ibid.

³⁶ A.C. Chatterjee, 'Mother and the Child', *Amrita Bazar Patrika*, 13 April, 1941.

Other medical professionals also shared similar views. Dr Gorachand Nandi, a deputy visiting surgeon at the Chittaranjan Seva Sadan Hospital read a paper at the Calcutta Medical Club in 1941 stating that while adequate ante-natal care could involve considerable expenditure, it could also curtail expenses in other directions. It would not only 'enormously' reduce the number of septic beds that were invariably also the most expensive ones, but also minimise the number of beds allocated for gynaecological complications and operations arising out of infection or injury caused by child-birth due to absence of ante-natal supervision during pregnancy. Such beds were a burden on the Government and public hospitals. Like Subodh Mitra, Nandi also denounced unnecessary operative interference following ante-natal supervisions stating that it 'does not help a woman very much if she is rescued from the hypothetical consequences of an abnormality and is killed in effecting a rescue.'³⁷

Although operative interventions were discouraged and cheaper ways of providing ante-natal care were being argued for, a benign form of medical supervision of the pregnant woman's health through ante-natal examinations such as urine test, blood pressure and measurements of the pelvis were suggested in a variety of writings on the subject in the inter-war years.³⁸ From the 1930s, however, preventive obstetrics and medical supervision acquired centrality in the discourse on maternal and infant welfare in India.

Diseases in Pregnancy and Preventive Obstetrics

Research on the preventable aspects of maternal and infant mortality became a national and political imperative in England from the 1920s. The 1920s had witnessed noticeable improvements in the sphere of maternal and child health, the most significant being the formation of the Ministry of Health in 1919 which took over the administration of maternal and child welfare related issues. In 1924, the first comprehensive Government Report on maternal mortality was published. It was written by Janet Campbell, the Senior Medical Officer to the department administering maternal and child welfare within the Ministry of Health. While highlighting the causes of maternal mortality to be improper professional attendance, abortions, rickets and specific diseases like sepsis, toxaeemias and haemorrhage, Campbell's report also focussed extensively on the preventive aspects of obstetrics. Arguing

³⁷ Gorachand Nandi, 'Antenatal Care', *Calcutta Medical Review*, Vol.4, No.4, April 1941, pp.121-132.

³⁸ Mitra, 'Ante-Natal Care'. Also see Alison M. Headwards, 'Care of Expectant Mothers', *Amrita Bazar Patrika*, 13 April, 1941.

that most of the deaths or illnesses associated with pregnancy were ‘avoidable’, the report reiterated the centrality of ante-natal supervision in the reduction of maternal mortality. It was stated that all attempts to curb maternal and infant mortality and promote improvement in the conditions of childbirth would be defeated if mothers did not realize the importance of placing themselves under medical guidance from the onset of pregnancy. It was equally important for the doctors and the midwives to realize the worth of ante-natal supervision in saving lives.³⁹

Campbell’s report was analysed with regard to Indian conditions by Dr Margaret Balfour. Her report was subsequently published in the *Indian Medical Gazette* in December 1924. Balfour commented that despite the absence of a Maternity and Child Welfare Act in India like the one passed in England or the lack of initiatives from the local bodies, ante-natal work could still be conducted by every medical practitioner by forming his/her own ante-natal centre connected with the consulting room. Balfour further argued that Indian doctors and midwives had to lay the foundations of ante-natal work which would then be embraced by the local bodies.⁴⁰

Investigations into the causes of maternal mortality began to be conducted in India in the 1920s under the institutional guidance of the Indian Research Fund Association which came into being in 1911 and was funded by the Government of India.⁴¹ In analysing maternal morbidity in India, such researches identified the diseases in pregnancy and in the process, redefined birth as a pathological condition requiring medical supervision. However, lack of reliable mortality figures attributed to ‘defective’ birth registrations and failure of large maternity hospitals to preserve records of births and deaths constituted serious constraints in collating data for research purposes.

An initial enquiry on the causes of maternal mortality in India was conducted by the Indian Research Fund Association in 1925. The findings were later published in a report entitled,

³⁹ Oakley, *Captured Womb*, p.63.

⁴⁰ M.I. Balfour, ‘A Comment on the Report on Maternal Mortality During Childbirth in England by Dr Janet Campbell of the Ministry of Health, With a Reference to Maternal Mortality in India’, *The Indian Medical Gazette*, Vol.59, December 1924, pp.621-624 The report does not mention the sex of the doctor. It can however be assumed that she was referring to both the male and female medical professionals.

⁴¹ The Indian Research Fund Association was established in 1911 as a body promoting medical research in India and remained the principle body conducting medical research till independence. After independence; it was renamed as the Indian Council for Medical Research. For details, see Ward Morehouse, *Science in India* (Bombay: Administrative Staff College of India, 1971).

‘Maternal Mortality in Childbirth in India.’⁴² The investigation was based on questionnaires sent out to all the major maternity wards and hospitals in India. The data received were classified and compared to similar figures for hospitals in England and Ireland. The significance of the report lay in its in-depth analysis of the diseases of pregnancy that were shown to substantially affect the maternal mortality figures in India. The report stated: ‘There has been a general impression for many years past that the conditions of childbirth in India are difficult and the mortality high; this has been popularly put down to the wretched attendance for women at the time of childbirth, and to the lack of medical relief when necessary, but those who have seen much of obstetrics have been aware that there is also much disease in pregnancy.’⁴³ It identified several diseases during pregnancy such as anaemia, eclampsia, osteomalacia, venereal diseases, ‘accidents or complications during pregnancy or labour’ and ‘size of pelvis.’ It concluded that there was ‘much disease connected with pregnancy in India’ that was squarely responsible for the ‘greater part’ of maternal mortality, still births and infant mortality. The remedy was sought in ante-natal care. The research concluded by emphasizing on the importance of ante-natal research.⁴⁴

From the 1920s female medical professionals associated with the Women Medical Service (WMS), established in India in 1912, undertook researches into the causes of maternal mortality in India which were funded by the Indian Research Fund Association. At the Far Eastern Association of Tropical Medical Congress in 1927, Margaret Balfour read a paper on the factors affecting maternal mortality in India. She identified anaemia, eclampsia and osteomalacia as the chief causes of maternal mortality in the country. Agnes Scott’s paper, also read at the Congress was yet another detailed analysis of the geographical variation in the incidence of osteomalacia.⁴⁵ In the 1930s, the medical women attached to the newly established All India Institute of Hygiene and Public Health (AIIPH) in Calcutta sought the co-operation of the Health Officer of the Corporation in carrying out studies on ‘pyorrhoea’ during pregnancy or on the impact of nutrition on maternal and infant health.⁴⁶

⁴² ‘Maternal Mortality in Childbirth in India: A Summary of the Investigations conducted under the Indian Research Fund Association, 1925’ (Calcutta: Government of India Central Publication Branch, 1928).

⁴³ ‘Maternal Mortality in Childbirth in India’, p.1.

⁴⁴ ‘Maternal Mortality in Childbirth in India’, p.12.

⁴⁵ ‘F.E.A.T.M Congress: Obstetrics and Gynaecology’ *Indian Medical Gazette*, Vol.63, April 1928, pp.216.

⁴⁶ *Annual Report of the All India Institute of Hygiene and Public Health (AIIPH)*, 1938 (Calcutta: Government of India Press, 1939), pp.48-49.

On another plane, the centrality of pelvic measurement in ascertaining the normal/abnormal character of pregnancy stimulated obstetric research on the size of pelvis of Indian women. In Bengal, critical enquiry into the 'relation of childbearing to the progressive development of the female pelvis' came to be carried out by medical men from the second decade of the twentieth century.⁴⁷ Dr Grace Stapleton's study of pelvic measurements of Indian women in the city of Agra in 1925 constituted one such effort.⁴⁸ In a similar vein, Kathleen Vaughan's research in Kashmir showed how pregnancy was a perfectly normal function when the pelvis fitted the size of the foetal head. Contracted pelvis, Vaughan pointed out, which impeded smooth passage of foetal head during labour was a consequence of rickets, prolonged confinement in the zenana and lack of manual labour.⁴⁹

However, it was the trope of purdah that emerged as the most identifiable source of diseases causing contraction of pelvis. In 1929 Hemangini Sen, the editor of *Bangalakshmi* critiqued the insanitary conditions of Bengali homes that, according to her were shut off from sunlight and fresh air and hence, caused respiratory and heart diseases amongst Bengali females. Sen therefore singled out purdah as the most potent source of disease.⁵⁰ Similarly Kathleen Vaughan, in one of her earlier work had attributed osteomalacia or the softening of bones amongst Kashmiri women to the observance of purdah and in the process overlooked other plausible causes such as deficient diet. The use of purdah as a trope was later evident in the Indian feminist discourse that sought to associate it with maternal morbidity, birth of weaklings and the consequent moral and physical degeneration of the Indian race.⁵¹ In this connection, Maneesha Lal has argued that western medical discourse overemphasized purdah as the most potent source of female diseases like osteomalacia, rickets and tuberculosis that

⁴⁷ A.M. Mallick, 'The Pelvis in the Female and its Progressive Development (as studied from some Indian cases)', *The Calcutta Medical Journal*, Vol.9, August 1915, pp.41-54. Also chapter two has shown Kedarnath Das's research on pelvis of Bengali women which led him to modify the Simpson forceps and design the famous 'Bengal forceps' for Bengali females. For details, see chapter two.

⁴⁸ Grace Stapleton, 'Pelvic Measurements in Indian Women' *The Indian Medical Gazette*, Vol.60, Dec.1925, pp.560-561. Subsequently published in *Journal of the Association of Medical Women In India*, Vol.15, No.2, 1927, pp 8-11.

⁴⁹ Kathleen Vaughan, 'The Shape of the Pelvic Brim as a Determining Factor in Childbirth' *The British Medical Journal*, Vol.2, No.3698, Nov.1931, pp.939-941.

⁵⁰ Hemangini Sen, 'Svasthya Samasya (Health Problems)', *Bangalakshmi*, Vol.3, No.7, June 1929, pp 533-535.

⁵¹ Maneesha Lal, 'Purdah as Pathology: Gender and Circulation of Medical Knowledge in Colonial India', in Sarah Hodges ed., *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).

led to other socio-economic factors perpetuating women's ill health such as poverty, overcrowding, malnutrition, colonial socio-economic policies and patriarchal dominations being ignored or obscured.⁵²

In 1929, the Departmental Committee on Maternal Mortality and Morbidity under the Ministry of Health of England issued a Memorandum defining the scope of ante-natal care in England. It was entitled 'Ante-natal Clinics: Their Conduct and Scope.'⁵³ This was followed by two reports on maternal mortality and morbidity issued in 1930 and 1932 by the same committee. In these reports, 49% of the maternal deaths were considered to be preventable, while 17% of them were attributed to the absence of ante-natal care. It was also estimated that the rate of still births would fall by 50% if adequate ante-natal care was provided to the pregnant women. The findings of the report were analysed in the *Calcutta Medical Journal* and in the Bengali magazine *Byabosa o Baniya* to reiterate the 'preventability' of maternal deaths during childbirth.⁵⁴ The annual reports of the All India Institute of Hygiene and Public Health also showed that most of the maternal deaths in Calcutta were preventable.⁵⁵

Diet of the expectant mother also became an intense area of research funded by the Countess of Dufferin Fund and the Indian Research Fund Association. Efforts to standardize the diet of pregnant women along established standards of nutrition constituted the focus of such research. It encouraged further probes into the causes of 'deficiency' diseases which were stated to arise out of 'ill-balanced' diet or lack of vitamins.⁵⁶ Also the occurrence of pregnancy related anaemia was linked to the dietary and hygienic habits of the Bengalis in Calcutta.⁵⁷

⁵² Lal, 'Purdah as Pathology, p.87.

⁵³ Oakley, *Captured Womb*, p.79.

⁵⁴ Ranajit Sinha, 'Some Preventive Aspects of Obstetrics', *Journal of the Indian Medical Association*, Vol.10, No.7, April 1941. Also see, 'Prasuti Hatya (Death of Pregnant Woman)', *Byabosa o Baniya*, Vol.14, No.9, 1934, pp. 718-719.

⁵⁵ 'Maternity and Child Welfare Work in India', *Journal of the Indian Medical Association*, Vol.8, No.1, October 1938, pp.38-39.

⁵⁶ Margaret Balfour and Shakuntala Talpade, 'The Influence of Diet on Pregnancy and Early Infant Mortality in India', *The Indian Medical Gazette*, Vol.LXVII, No.1, 1932, pp. 601-606. Also, Rao Sahib, 'Deficiency Diseases and Pregnancy', *Indian Medical Record*, March 1944, pp.65-70.

⁵⁷ 'Clinical and Scientific Proceedings: Calcutta Branch, Pregnancy Anaemia in India', *The British Medical Journal*, Vol.1, No.3726, June 1932, pp.1031-1032.

Thus, researches into causes of maternal mortality in India in the early decades of the twentieth century brought forth the diseases associated with pregnancy and explained the need to diagnose and cure them ante-natally through medical supervision and intervention when appropriate. Such assertions became fundamental to the professionalization of obstetrics in Bengal in the inter-war years. Dr G.G. Jolly of the IMS had stated in 1940: 'Each stage prenatal, natal and postnatal may with luck be safely negotiated without the aid of doctor or nurse, but it is a proved fact that mother stands the best chance of safe delivery and a healthy child who obtains and follows expert medical advice throughout. Much responsibility can and in most cases must be devolved upon health visitors and midwives, but our efforts should be directed towards securing the minimum necessary examination and supervision by a qualified doctor in every case.'⁵⁸ Yet, in the specific socio-economic context of Bengal, ante-natal care was understood by the public health officials and some medical professionals as ideally an inexpensive and affordable alternative to doctor supervised hospital based birth. They preferred to promote home birth under the care of trained midwives or health visitors. The next section outlines the contours of ante-natal work undertaken in Bengal. It will ask the question whether or not it reflected a growing medical hegemony of the doctors or did it remain confined to providing simple instructions to women on taking care of health during pregnancy that often had no bearing on the actual conditions in which birth took place or the quality of attendance at birth.

Ante-Natal Work in Bengal, 1912-1947

A close study of the ante-natal work undertaken in Bengal in the late colonial period reveals the predominance of the public health workers, municipalities and voluntary bodies and the marginality of institutional/hospital based endeavours. In 1912, when new regulations for the M.B degree were introduced by the Calcutta University, special instructions in ante-natal care and infant hygiene were made mandatory for the candidates.⁵⁹ That was indeed a major step towards including ante-natal care as an important element of obstetrics. Yet, ante-natal services were initiated by the Calcutta Municipal Corporation and not by the CMC. By 1912,

⁵⁸ G.G. Jolly, 'The Need for Co-operation in the Medical Health Services of India with special reference to Maternity and Child Welfare' *The Indian Medical Gazette*, April 1940, p.237.

⁵⁹ 'Editorials: Medical Profession and Maternal and Child Welfare Work', *Calcutta Medical Journal*, Vol.41, No.6, June 1944, pp.196-199.

the Corporation had already formulated schemes to provide health care to pregnant women in the form of home-visiting, although the focus was primarily on lower middle class and poor mothers.

Home-visiting was started in 1912 by a newly evolved category of female health visitor—previously designated as sanitary inspector. In the same year, the female health visitor was reported to have spoken to 200 pregnant women and advised them in 82 cases to seek the care of Corporation midwives. The Health Visitor also stated in her report how detection of anaemia during pregnancy in the course of home-visiting led to the delivery of the pregnant women at the hospital and in the process saved her life.⁶⁰ Within two years, the annual report of the Corporation recorded the increase in the number of home-visits by leaps and bounds. In 1914 a single lady health visitor was reported to have ‘visited 3, 666 homes in which 6,740 families were living; no fewer than 6,740 women were interviewed and given simple instructions chiefly in the care and management of children. Largely owing to the excellent relations established with the *dhais*, 545 newly-born babies were visited.’⁶¹

A chain of maternity centres established by the Corporation in the 1920s brought into being a scheme of domiciliary midwifery services sustained by a staff of female health visitors and trained midwives. The domiciliary midwifery service enabled the management of normal delivery at home while transferring difficult or complicated cases to the hospital and maternity homes run by the Corporation. The trend continued in the subsequent decades. Despite remarkable increase in home-visiting, the recalcitrance of the allegedly ‘prejudiced’ and ‘ignorant’ slum dwellers was often a serious obstacle recounted in such reports. Thus, one Miss Lewis recounted how, ‘the *bustee* (slum) people were afraid and hid their women if they were pregnant and gave us no information or help.’⁶²

Post-natal care constituted a more significant part of Corporation’s work. In 1916, a scheme of visiting the babies delivered by municipal midwives was introduced as a form of post-natal supervision. The difficulty of convincing mothers to bring their babies to the hospitals for post-natal check-up led to home-visiting being deemed as the only viable alternative. Thus, it was laid down that as soon as the puerperal period of ten days was over, the babies would be

⁶⁰ H.M. Crake, *Report of the Health Officer of Calcutta* (Calcutta: Corporation Press, 1913).

⁶¹ Crake, *Report of the Health Officer of Calcutta*, 1914.

⁶² Crake, *Report of the Health Officer of Calcutta*, 1916.

entered into the registers of the female health visitors whose principal task would be to pay home visits and systematically monitor the health of the baby up to three months after birth on a weekly or fortnightly basis. Although the progress of the baby welfare work was reported to be slow in the absence of adequate health visitors, provisions were still made for the supervision of the poor mother and her child. This included providing 'nourishing food' for the mother, milk for the baby, warm clothing for the infants to brave the winters and also medicines such as ergot, quinine and castor oil.⁶³ By 1920, there were four maternity centres conducting home-visiting and deliveries of pregnant women. Three more child welfare centres for post-natal and baby-welfare purposes were added to the existing system in 1921.⁶⁴

The question of milk supply also became integral to post-natal work. In 1915, J. Patson, the Assistant Director of Dairy Farms was appointed by the Government to inquire into the problems related to pure milk supply in Calcutta. Amongst his recommendations, the important ones were for the establishment of Calcutta Corporation dairy farm and further investigations into the quality of milk produced in the mufassils. The Health officer of the Corporation further articulated in 1916 the urgent need of 'municipalizing' milk supply for the whole of the city of Calcutta. Aid from the affluent sections of the society was considered essential in establishing milk depots in every part of the city and in ensuring the preparation and supply of 'humanised' milk at a low price for feeding the infants. In 1921, the first step was taken in this direction by the establishment of five baby clinics and milk depots in different parts of Calcutta by the Indian National Association and the St. Johns Ambulance Association. The milk kitchens attached to the clinics supplied free milk to the infants. Eventually in 1924 the Corporation opened six milk kitchens and child-welfare centres and placed them under the control of a trained nurse. The milk kitchens were reconstituted and increased in number in 1934 to ensure free supply of milk to greater number of babies below two years of age and later on, to women's welfare organizations such as the *Hindu Nari Kalyan Ashram* (Hindu women welfare society), *Hindu Abala Ashram* (Abode for Helpless Hindu Women), *Bengal Social Service League*, etc. The total number of babies registered in the milk kitchens showed a steady rise in the late 1920s and 1930s.⁶⁵

⁶³ Crake, *Report of the Health Officer of Calcutta*, 1920, 1921 & 1922.

⁶⁴ Crake, *Report of the Health Officer of Calcutta*, 1922.

⁶⁵ Ibid.

Eradication of maternal ignorance emerged as one of the key planks in the promotion and expansion of preventive obstetrics in the inter-war years. At a time when the educative aspects of ante-natal care were being emphasized by medical men, public health officials and the Bengali press, the Calcutta Corporation took up the significant task of enlightening mothers on health and hygiene from 1912. In 1914, the first female health visitor remarked, 'As education spreads, the need and opportunity for instructing wives and mothers in the principles of public and domestic hygiene increase. Even educated lady, not to speak of the half-educated and the illiterate, have exceedingly vague ideas of hygienic principles.'⁶⁶ From 1912 onwards, mothers were given instruction in elementary hygiene and infant feeding during home-visits. From the 1920s, education of mothers was incorporated into the work of the baby welfare clinics.

The early history of the evolution of ante-natal services in Bengal was therefore, dominated by home-visiting facilities provided by the Calcutta Corporation and the provincial municipalities, the most noteworthy being those in Darjeeling, Dacca, Rangpur and Rajshahi. From 1915, the Bengal Social Service League, a voluntary organization contributed significantly towards maternal and infant welfare work. Its chief contribution lay in establishing a maternity and infant welfare centre in a 'Settlement house' which was built on a gift of land from the Calcutta Corporation and was located in a Muslim dominated 'bustee' area (slum) in the northern part of Calcutta. The League offered to Muslim women mothercraft lessons that included ante-natal advice on diet and general health care during pregnancy. The European health visitor, Luise Gompertz who was in charge of the Settlement House recounted in the 1940s that the mothers who adhered to such advices during pregnancy often recovered 'most wonderfully' from illness and on a daily dose of milk, iron, calcium and cod-liver oil regained strength by the time their babies arrived.⁶⁷ By the 1930s, there were 22 maternity and infant welfare clinics outside Calcutta, where pregnant women were registered and provided ante-natal care, apart from home visits being made by health visitors when necessary. Abnormal cases were transferred to the hospitals.⁶⁸ However, ante-natal work did not figure prominently in the expanding domain of activities of the Saroj Nalini

⁶⁶ Crake, *Report of the Health Officer of Calcutta*, 1914, p.23.

⁶⁷ Luise Gompertz, 'In a Calcutta Slum: Taking Care of Mother and Child' *The Calcutta Municipal Gazette*, The Twelfth Health Number, 26 April 1941, pp.61-70.

⁶⁸ *Bengal Public Health Report*, 1936 (Alipore, Bengal: Bengal Government Press, 1938), pp.101-102.

Dutt Memorial Association (SNDMA) which was entirely managed by middle class Bengali women and contributed significantly to the starting of *dhai*-training classes, mother-craft lessons and establishment of baby clinics in the districts of Bengal⁶⁹.

The foundation of the All India Institute of Hygiene and Public Health (AIHPH) in 1934 and the Bengal Health Welfare Committee under the Indian Red Cross Society in 1936 expanded the ambit of ante-natal work in Calcutta and the outlying areas. The AIHPH, as mentioned in chapter three, was a major institutional site for the training of public health workers including maternity and child welfare workers. In 1935, the Institute established a maternal and child welfare centre in Ward 8, located in the north-central part of the city that housed ante-natal, infant and toddler clinics. Within a year of the establishment of the ante-natal clinic, an attendance of 54% out of a total of 384 cases identified was recorded in the annual report of the institute.⁷⁰ It showed a steady growth in the subsequent years. However, the 1938 annual report showed that only 26.5% of women attending the clinic received 'complete' ante-natal, intra-natal and post-natal care. That included 2 visits by pregnant women to the centre, monthly domiciliary advice by health visitor, delivery of child by the midwife attached to the institution and lastly, post-natal care by the midwife, health visitor and the doctor. 18.2% of the women had delivery at hospitals and maternity homes, 10.9% by other midwives, 1.9% by private doctors and lastly, 43.1% by untrained dhais.⁷¹ The report therefore revealed the inconsistencies in the ante-natal work conducted in Calcutta that resulted in actual care being restricted to the puerperal period while most of the deliveries continued to be managed by dhais and relatives of the mother. Consequently, most of the pregnant women attending the ante-natal clinic remained outside direct medical supervision.

Yet, the work of the maternal and child welfare centre attached to the AIHPH served as a model for the Red Cross Society in establishing its sphere of activities in Bengal. The results achieved by the maternity and child welfare centre under AIHPH 'were found to be so good it was thought the Red Cross could do no better than follow the excellent example there presented.'⁷² Consequently the Bengal Health Welfare Committee (BHCW) was established

⁶⁹ 'Mahila Samiti Sangbad (News from Women's Organization)', *Bangalakshmi*, Vol.3, No.2, 1927. 'Lecture by Suprava Mukherjee' *Bangalakshmi*, Vol.3, No.2, 1927.

⁷⁰ *Annual Report, AIHPH*, 1936.

⁷¹ *Annual Report, AIHPH*, 1938.

⁷² *Bengal Health Welfare Committee, Annual Report* (Indian Red Cross Society, 1936), p.4.

as a voluntary body in 1936. Under the revised plan of the newly formed BHWC, each of the six maternity and child welfare centres under its control, was to operate within a limited area, providing health service to all expectant mothers and to those with newly born babies and infants within its jurisdiction. The maternity benefit scheme launched by the Committee was composed of six committees: 'Calcutta Maternity and Child Welfare Committee', 'District Maternity and Child Welfare Committee' 'Industrial Welfare Committee' 'Bengal Health Education Committee' 'Calcutta Health Week Committee' and 'Sir John Anderson Health School'. Calcutta and the outlying mufassils and districts formed the area of activities of these committees.⁷³

BHWC's contribution to maternity and child welfare work chiefly lay in instituting ante-natal work in the areas surrounding the maternity and child welfare centres run by it. There were six maternity centres, chiefly the Entally Centre, Kidderpore Centre, Bhowanipore Centre, the Northern Centre and later on a *Shasthya Niketan* Centre (which replaced the Bhowanipore centre) and lastly, Servants of Humanity Society in Suhrawardy Avenue. Ante-natal care was provided in the form of home-visits and attendance of expectant mothers in the ante-natal clinics attached to the maternity centres. The ante-natal clinics were reported to have made 'thorough routine examination of each case' including urine test, estimation of blood pressure and haemoglobin percentage. Prescription on diet, instructions on hygiene and simple treatment for anaemia, calcium deficiency also constituted important tasks of the clinics. Abnormal or serious cases were moved to the hospital. Mothercraft classes conducted throughout the year also formed a part of the routine of the maternity and child welfare centres of the BHWC.

However, poverty and purdah system were mentioned by the BHWC as the chief socio-cultural constraints in preventing pregnant women from seeking ante-natal care. For instance, in the area surrounding the Entally centre which was largely inhabited by the Muslim population, ante-natal work was stated to be obstructed by the purdah system. It was pointed out that the practice of seclusion prevented Muslim women from attending the ante-natal clinics and also from going to the hospital even when seriously ill. Consequently, in the first annual report of the BHWC, the Entally centre was shown to have displayed the 'lowest attendance at the clinics and the highest mortality rates.' The reason for the failure was, 'not

⁷³ S.B. Ray, 'Maternity and Child Welfare: Neglect in India, A scheme for Calcutta Industrial Areas' *Amrita Bazar Patrika*, 11 December, 1939.

due to lack of energy and enthusiasm on the part of the workers but to the difficult nature of the population.⁷⁴ A similar situation was noted for the Kidderpore centre which too was located in a predominantly Muslim neighbourhood.

It is difficult to ascertain from the existing sources, the percentage of Bengali middle class women willingly placing themselves under the ante-natal care provided by the clinics. Dr Ruth Young complained till the late 1920s about the reluctance of Indian women in appreciating the worth of ante-natal care, an attitude that derived considerable support from the elderly female members of the joint family. Young further pointed out, 'in the middle classes it is often impossible for a young woman in this state even to go out. It is not considered proper and the latter part of pregnancy has to be spent within the home. Among the poorer and the labouring classes the latter objection may not hold good, but the idea that care is needed in pregnancy is just as strange to them.'⁷⁵

Yet, the BHCW's annual report for the year 1936 recorded the interest of the middle class Hindu women inhabiting the area around the Northern Centre in availing themselves of the ante-natal services. It stated:

It was very encouraging to find as the year proceeded how many middle class mothers availed themselves of the service of the ante-natal clinic and brought their infants regularly to the welfare clinic for advice only. These mothers were sufficiently educated to follow the advice given and had the means to procure the kind of diets advised. Both they and the centre staff rejoiced in and appreciated the good results when the advice was followed....The attendance at the ante-natal clinic increased very much towards the end of the year and if this continues next year Northern Centre should show a high percentage of attendance for ante-natal mothers.⁷⁶

The report however, focuses on a small section of the middle class women in a certain enclave in Calcutta and hence, cannot be taken to represent the overwhelming response of the middle class women to ante-natal care.

⁷⁴ *Bengal Health Welfare Committee*, p.9.

⁷⁵ Ruth Young, *Ante Natal Work in India: A Handbook for Nurses, Midwives and Health Visitors* (Maternity And Child Welfare Bureau: Indian Red Cross Society, 1931), p.1.

⁷⁶ *Bengal Health Welfare Committee*, p.12.

The BHCW further observed that the centres based in areas dominated by Bengali Hindu population were more successful in ante-natal work than those situated in Muslim dominated areas. For instance, the *Shasthya Niketan* centre which was established in north Calcutta catered for a predominantly Hindu population of middle class and slum dwellers and hence, recorded the highest percentage of ante-natal attendance compared to other centres. Thus, religious character of the population constituted a powerful factor in determining the percentage of ante-natal attendance in Calcutta in the 1930s. It was a fact further confirmed in 1931 by the Health Officer of the Corporation who ascribed the higher rates of infant mortality amongst the Muslims to a stricter practice of purdah that prevented Muslim women from seeking medical advice even when provided by female health visitors.⁷⁷

The provision of ante-natal care in the hospitals in Bengal was minimal in the period under review. As late as 1935, ante-natal care at the Eden Hospital was stated to be far from satisfactory.⁷⁸ Yet the 1938-39 annual report of the CMC alluded to the 'popularity of our ante-natal department.'⁷⁹ It was proudly claimed that ante-natal supervision of expectant mothers at the out-patients' department had lowered the rate of maternal morbidity and mortality including the percentage of puerperal sepsis. However, it was too radical a statement considering that even the ante-natal clinic attached to the Lady Dufferin Victoria Hospital in Calcutta complained of having meagre success as only 30 patients on an average attended the clinic on a weekly basis and 'only one-tenth of cases admitted to Hospital had had any ante-natal care.'⁸⁰ In the later years however, ante-natal care was prioritised by the Lady Dufferin Victoria Hospital to such an extent that ante-natal cases were 'given the preference both for in-door and out-door treatment and no such case is ever refused.'⁸¹

Dr Sundari Mohan Das, a former councillor of the Calcutta Corporation voiced the need for ante-natal care in the hospitals. Das argued:

⁷⁷ T.N. Majumdar, *Report of the Health Officer of Calcutta*, 1931, p.8.

⁷⁸ *The Centenary of the Medical College Bengal* (Medical College: Centenary Volume Sub-Committee, 1935), Chapter 4, p.98.

⁷⁹ *Annual Report on the Working of the Medical College, Calcutta, 1938-39* (Alipore: Bengal Government Press, 1939).

⁸⁰ *Annual Report of the National Association for Supplying Medical Aid by women to the Women of India*, 1936 (Simla: Government of India Press, 1937), p.67.

⁸¹ *Annual Report of the National Association for Supplying Medical Aid by women to the Women of India*, 1940, p.88.

A Maternity Hospital does not mean a place for the delivery of labour cases only. We have to prepare the prospective mother for the strain of labour and giving birth to a healthy child. This means *Ante-natal care*. But the care does not terminate with the termination of labour. We have to look after the mother and the child for a number of days to prevent childbirth complications and infantile mortality. This means *Post-Natal Care*. All these mean expansion of the Hospital. At present, for want of accommodation, the ante and post-natal care have to suffer.)⁸²

By the 1940s, *Chittaranjan Seva Sadan* had developed an ante-natal section at its Out-Patient Department. It also boasted of an X-ray unit. However, the extent of use of X-ray technology for pelvic measurements or foetal monitoring during the period under study is hard to determine owing to paucity of documents.

The only significant hospital-based ante-natal care was provided by the newly established Sisumangal Pratishthan (Child-welfare Institution) of the Ramakrishna Mission which was stated to have a 'system of smooth co-ordination of the activities of the institution in relation to the patients in general, viz., ante-natal care, confinement (Home and hospital) and post-natal care.'⁸³ Sisumangal Pratishthan was also credited with possessing modern 'up-to date appliances' for ante-natal supervision and was said to have put 'great emphasis upon ante-natal care, so much so that practically no care is undertaken without a proper course of ante-natal treatment.'⁸⁴ The institution also educated the expectant mothers through lectures, pamphlets and posters on diet, hygiene and infant care, as part of its ante-natal work.⁸⁵ However, being a charitable institution, the success of the institution depended largely on the financial help received from the Calcutta Corporation and the 'support and sympathy' of the public.⁸⁶

The trajectory of ante-natal work in Bengal indicates that much of it remained outside the purview of doctors or obstetricians, although the need to bring pregnancy under medical

⁸² Sundari Mohan Das, 'A Plea for Calcutta Hospitals', *The Calcutta Municipal Gazette*, 15th Anniversary Number, 16 December 1939, p.16.

⁸³ Birendranath De, 'Maternity Work and the Shishumangal Prathisthan', *Prabuddha Bharata*, Vol.LXVII, No.1, Jan 1942, pp.45-50.

⁸⁴ Birendranath De, 'Maternity Work.'

⁸⁵ *Ramakrishna Mission: Sisumangal Pratishthan—A Maternity Hospital and Child Welfare Centre*, Report for the Year 1939 (Calcutta: Secretary Ramakrishna Mission SisumangalPratishthan, 1940),p.13.

⁸⁶ *Ramakrishna Mission*, p.9.

supervision continued to be articulated by the medical professionals in the inter-war years. Despite an increasing percentage of hospital births in the inter-war years as alluded to in chapter three, hospital based ante-natal care was marginal suggesting lack of adequate infrastructure for such schemes and absence of public apathy towards the subject. Nevertheless, what started off as predominantly a municipal endeavour in the second decade of the twentieth century was pursued later by voluntary bodies such as the All India Institute of Hygiene and Public Health and the Bengal branch of the Red Cross Society in the 1930s. The Corporation's work being mainly confined to the slums and lower middle class neighbourhoods of Calcutta, the intervention of the Red Cross Society implied a broadening of the social base of ante-natal work. It incorporated the middle class neighbourhoods in certain areas of the city. Yet, the scope of the ante-natal work was circumscribed by the limited number of maternity and child welfare centres operating under the Bengal Health Welfare Committee.

The Constraints

Most of the districts outside Calcutta fell outside the purview of meaningful ante-natal work executed by the municipalities and the voluntary bodies. This included the rural belts and the industrial areas. The nationalist press stressed the need for inclusion of ante-natal and post-natal care schemes in the programmes of the Labour Welfare Organization. It was proposed that ante-natal work be carried out in dispensaries attached to every mill. Weekly examination of pregnant women in the mill areas was considered central to the clinic's work. Acquisition of basic instruments such as urine testing and blood pressure measuring apparatus, pelvimeter, speculum, scissors, dressing forceps was deemed indispensable to run the proposed ante-natal clinic. It was insisted in the *Amrita Bazar Patrika* that, 'as far as industrial areas are concerned, properly organised provision of ante-natal and postnatal services for Mill labour does neither present any serious difficulty nor involve excessive outlay.'⁸⁷ Similarly, in the context of rural areas, it was argued that if the Government provided a grant to the District Boards, then a 'rural Public Health Organization' could be started which could initiate ante-natal work in terms of home-visiting and providing mother-

⁸⁷ Ray, 'Maternity and Child Welfare'.

craft lessons to rural women.⁸⁸ Yet maternal mortality continued to figure as a potent national problem on the eve of independence and thereafter.

Ante-natal work in Bengal remained fragmented even though its importance had been recognized across a wide spectrum of public debate on maternal and infant health from the 1920s. Despite the proliferation of maternity hospitals, admission of pregnant women before the onset of labour was rare and confined to few hospitals. While assessing the failure of ante-natal service to lower maternal mortality rates in Calcutta for the year 1936, the Bengal Health Welfare Committee squarely placed the blame on the refusal of the expectant mother to follow the advice given by the ante-natal clinics. However, according to Sundari Mohan Das, it was the inadequacy of financial resources rather than the lack of will of Bengali females to seek hospital treatment, which impeded the expansion of maternity hospitals. The consequence was the failure of such hospitals to accommodate an increasing number of patient before the actual onset of labour.⁸⁹

An enquiry in 1936 into the causes of maternal mortality in Calcutta conducted by Neal Edward, the professor of maternity and child welfare at the All India Institute of Hygiene and Public Health revealed certain systemic weaknesses in the provision of ante-natal care in Bengal. It revealed that the very few hospitals that conducted ante-natal supervision lacked the provision of 'follow-up' in homes. The hospitals did not have enough beds for ante-natal cases and also had no separate ante-natal wards for the patients who were said to be admitted to obstetric and other wards. Edward's study therefore, concluded that the major hospitals and maternity homes admitted patients who were 'seen' for the first time during labour. In a similar vein, the quantity and quality of domiciliary ante-natal work was also shown to be limited. In this connection, the study pointed out how ante-natal supervision by maternity centres of patients who delivered at home was of a 'casual' nature. For those women who failed to show up or adhere to advices provided by the clinics, there was no systematic effort to bring them under supervision. Thus, it was concluded that, 'The number of women in Calcutta at present who get systematic ante-natal care...is however limited to a few hundreds who come under the welfare centres and a certain number of others under the care of private practitioners.'⁹⁰

⁸⁸ J.N. Chakraborty, 'Fight Against Infant Mortality', *Amrita Bazar Patrika*, 25 September, 1937.

⁸⁹ Das, 'A Plea for Calcutta Hospitals'.

⁹⁰ M.I. Neal Edwards, *Report of an Enquiry into the causes of Maternal Mortality in Calcutta*, Health Bulletin

The appointment of the Health Survey and Development Committee by the Government of India on 18 October, 1943 under the chairmanship of Sir Joseph Bhore confirmed the deplorable rate of female mortality in India. It pointed out that, 'on a conservative estimate, about 200,000 women died annually from causes arising out of childbirth in a year in British India. And that the number of those who suffered from varying degrees of disability resulting from the same causes must be many times that figure.'⁹¹ It suggested uniformity in the supervision of pregnant women in the ante-natal, natal and post-natal periods. It strongly recommended that the responsibility of the pregnant women in all the three stages of pregnancy be taken over by the same doctor, health visitor and midwife in each locality. It also stated that the appointment of more women doctors and health visitors would ensure the efficacy of the ante-natal and post-natal schemes.

Conclusion

The chapter has identified three factors responsible for the uneven nature of ante-natal provision in Bengal: Firstly, the cultural inhibitions of the average Bengali women debarred them from seeking ante-natal consultation on a regular and sustained basis. Secondly, lack of financial resources or absence of aid from Government impeded the expansion of the hospitals to include ante-natal clinics. Thirdly, the systematic implementation of ante-natal care in Bengal was not hampered so much by the class divide as it was by a much stronger urban-rural divide. The ante-natal care provided by the municipalities and the voluntary organizations ensured accessibility of medical care during pregnancy to the poor and the lower middle class in the city. However, owing to the scant attention paid by the public health officials to the rural areas of Bengal, middle class and poor women residing in the villages mostly remained deprived of the benefits of the modern health system till the end of the period of this study. Morbid portrayal of the sufferings of rural women under the grip of 'untrained', 'ignorant' and 'unscientific' dhais featured regularly in the nationalist press. Appeals for Government intervention in training the dhais and co-opting them into modern health care system continued to be made.⁹²

No.27, (Delhi: Manager of Publications, 1956).

⁹¹ *Report of the Health Survey and Development Committee*, (Delhi: Government of India Publications Department, January 1946), Chapter viii, p.97.

⁹² See for instance, J.N. Chakraborty, 'Fight Against Infant Mortality' and 'Bengal Maternity Services:

The half-hearted implementation of ante-natal care schemes in late colonial Bengal does not however mean that there was any absence of public debate on maternal morbidity and mortality. The idea of the dominance of science as an indispensable component of modern nation states accounts for the primacy accorded to the scientific management of birth in Bengal. Ideas on care of expectant mothers had been in vogue in Bengali popular print media in the nineteenth century and were standardised further in the twentieth century. Furthermore research on ante-natal care and the specificities of tropical diseases related to childbirth, and the emphasis on pelvimetry and urine tests enabled the emergence of new perceptions on the management of pregnancy and childbirth. Female body formed the nuclei around which a medical discourse was forged that defined the 'national' problems of maternal and infant mortality from a global perspective. Yet the actual care of pregnant women remained in the hands of health visitors and voluntary workers who were insufficiently qualified and trained to address the needs of the Bengali female population on a sustained basis. Childbirth was not completely medicalized in India till the 1980s.⁹³ Yet as the chapter argues, a beginning had been made in the early twentieth century, at least in discourse, if not entirely in practice.

Deplorable State' *Amrita Bazar Patrika*, 17 April, 1941.

⁹³ Imrana Qadeer, 'Continuities and Discontinuities in Public Health: The Indian Experience' in Amiya Kumar Bagchi and Krishna Soman ed., *Maladies, Preventives, and Curatives: Debates in Public Health in India* (New Delhi: Tulika Books, 2005).

Conclusion

The history of the medicalization of childbirth practices and institutionalization of midwifery in colonial Bengal is part of a larger story of modernization, initiated by the middle class Bengali bhadralok. In tracing this story the thesis has broadly looked at two major phases in the social history of Bengal: the reformist phase in the late nineteenth century and the nationalist phase in the twentieth. Its argument is structured into three discursive strands: the modernization of birthing practices and dissemination of medical ideas on midwifery that was part of the self-improvement drive of the nineteenth century western educated bhadralok; secondly, the process by which midwifery education was instituted and sustained in Bengal; and thirdly, the contours of professionalization of obstetrics and the socio-political factors shaping it.

The thesis demonstrates how the reformist initiatives to improve child-bearing practices in the second half of the nineteenth century were parts of a modernization discourse spearheaded by the middle-class bhadralok. Reforming midwifery was also very much the result of the foundation of the Calcutta Medical College (1835) and the clinical/scientific education it introduced for the middle class Indians. The thesis has indicated the centrality of the rhetoric of science and rationality in shaping middle class identity in Bengal during the nineteenth century, a trend that was as evident in the educational curricula in the schools and colleges as in the foundation of scientific associations and philosophical societies in the nineteenth century. Rationality was integral to the reform of domesticity as well. Such reform initiatives were shaped by the contemporary public debates regarding the status of women in the Bengali society, which was scornfully referred to by the colonial rulers as 'low', denoting the inferiority of the Indian civilization. The Brahmos, who represented the more liberal section of the western educated elites promptly responded to such criticisms and spearheaded significant reforms such as eradication of sati, *kulin* polygamy and promotion of widow remarriage. Some of the more sustained reform initiatives were female education and reforming domesticity. These were designed to create a new bhadramahila, who would be educated and enlightened, yet firmly located in the reformed but uncolonized domestic terrain. Improvement of birthing practices became a part of this bhadralok reform agenda.

The print culture played a central role in shaping the image of bhadramahila and in disseminating reformed ideas of domesticity and familial relations to the middle class

readers. The thesis has linked this process of popular reading culture to the modernization of birthing practices. The loss of infant life which was beginning to be recognized as a matter of concern by the Bengali males from the second half of the nineteenth century was attributed to the ignorant practices of the uneducated Bengali women and the dhais. To address such concerns, the bhadralok embraced the responsibility of teaching western scientific principles of midwifery to the middle class women as part of educating and enlightening them in their role as mothers.

The thesis argues that the early essays on scientific midwifery that were being disseminated through the pages of women's magazines represented the first major attempts at redefining birth as a medical phenomenon. They clearly explained the mechanism of labour, also hinting at complications associated with the process. In this way, pregnancy and childbirth were redefined as something more than a lay art that could not be left in the hands of the dhais. Under the impact of the new clinical discourse introduced by western medical science taught at CMC, these writings questioned the validity of existing birthing practices that were perceived as more ritual oriented and hence, less rational and scientific. Such ideas were later appropriated by educated middle class women and also acquired centrality in the nationalist discourse on maternal and infant welfare in the twentieth century. This new middle class modernist consciousness, the thesis argues, lay at the root of all changes in the practice of midwifery in colonial Bengal.

The second major discursive strand of the thesis deals with the process through which midwifery was constituted into a medical discourse and subsequently institutionalized in Bengal in the late nineteenth and early twentieth centuries. It has shown how the practice of seclusion that was prevalent amongst Bengali females was cited as a major reason by the CMC authorities for their initial reluctance to allocate funds for a separate midwifery class. It was also the chief reason behind the Government decision to prioritise the teaching of dhais instead of training male students. Later the same logic of seclusion was used by few liberal British administrative officials and a section of the Brahmo reformers to argue in favour of admitting female physicians to the Medical College, despite there being persistent opposition from the conservative bhadralok and few members of the CMC Council. The female doctors once admitted to the CMC and the Campbell Medical School under the auspices of the Dufferin Fund played a pivotal role in popularizing western medicine in the countryside. However, as the thesis demonstrates, in seeking professional recognition, the female doctors sought to appropriate all those areas of medical practice which had so far been controlled

solely by male doctors. Thus, they sought to master surgery that had hitherto been an exclusive male preserve and formed their professional associations including the Women's Medical Service in 1912.

The thesis however brings to light the role of male doctors which has been greatly understated in existing historiography. In so doing, it has addressed a major historical void that stemmed from the contention that women doctors were the sole agents in the medicalization of childbirth owing to their easy accessibility to the Indian zenanas. It argues that while women doctors played a major role in providing medical aid to women in zenanas, male doctors' contribution was no less significant although it was more at a discursive level than in the domain of actual practice. By publishing easily readable monographs and scientific tracts on midwifery in Bengali language that were meant for the instruction of dhais and ordinary middle class readers or by experimenting with surgical techniques on female patients in hospitals, the male doctors consolidated the theoretical and scientific foundations of the newly evolved science of obstetrics. In the inter-war years, they advocated cautious use of forceps in obstructed labour, defended caesarean sections and spoke in favour of ante-natal care for preventing maternal and infant mortality, by couching their arguments in nationalist rhetoric. They also emerged as nationalists in the 1920s, defending and overhauling the structure of midwifery education in the medical colleges against charges of inadequacy and defective training made by the General Medical Council of England. Thus, as professors of midwifery, researchers, composers of tracts on the science of reproduction and as nationalists seeking to initiate a public debate in support of modern maternity care in the interest of the nation, the role of the male doctors remained more ideological though less directly participatory in the realm of actual medical practice.

The third strand in this thesis examines the contours of professionalization of obstetrics in the nationalist phase in Bengal. In doing so, it brings to light the role of medical professionals in stimulating a public debate on maternal and child welfare that drew upon the rhetoric of motherhood and global eugenic notions on the centrality of race in national regeneration. The metaphor of nation that became powerful in the wake of the Swadeshi Movement in 1907 led to the nation being imagined as mother. In the years following the First World War, concerns for maternal and infant health which acquired national importance in England impinged upon the nationalist sensibilities of the Bengali middle class and in the process drew motherhood into the centre of an emotionally charged nationalist discourse. The emergence of secular politics from the 1920s and the pressure from international bodies such as the League of

Nations further sharpened the nationalist focus on infant and maternal welfare as the key to national efficiency. Such ideas were amply evident in the writings of medical professionals, highlighting the harmful impact of child marriage and early maternity on the future of the nation. In seeking to modernise maternal care, medical professionals drew heavily on global advancements in science and technology. Examples from western countries were repeatedly drawn to highlight the deficiencies in Bengali conditions. Yet in absorbing global ideas, the medical professionals and the middle class *bhadralok* couched their argument in the rhetoric of nation in order to conceal the western origin of such ideas and project them as part of indigenous medical tradition. For that matter, the use of forceps and caesarean section were projected as part of the Hindu medical tradition.

However, when it came to the lower middle class and slum dwelling female population of Calcutta, it was the Calcutta Municipal Corporation which played a crucial role in providing modern maternity services for such women. The Corporation from the 1920s co-ordinated between public health officials (chiefly the health visitors) and the medical professionals who enabled the consolidation of medical/professional control over the process of pregnancy. The schemes introduced by the Corporation such as home visits to pregnant women's houses by health visitors or instituting domiciliary midwifery services to ensure professional attendance at birth drew the lower middle class women in Calcutta into the fold of western medical care and the institutions promoting it such as hospitals, maternity homes and maternity centres. The thesis concludes that providing western allopathic medical aid to the lower middle class women in the inter-war years was the most preferred way of the nationalists and the medical men to curtail maternal and infant mortality and in the process, ensure the welfare of the nation.

Concerns over maternal and infant mortality led to the promotion of the idea of ante-natal care in Bengali popular print, particularly in the writings of the Bengali doctors contributing to health journals and women's magazines. Rudimentary ideas of ante-natal care were already in vogue from the late nineteenth century when essays referring to the need for care of pregnant women in simple non-technical terms were sporadically published under the title of '*garbhinir paricarya*' (care of pregnant women). In the inter-war years, such writings in the press, popular journals and lectures delivered at the baby shows and health welfare exhibitions redefined birth as a pathological condition that required medical supervision and professional attendance. Diseases associated with pregnancy such as anaemia, eclampsia, osteomalacia were highlighted in research on maternal mortality that were conducted by male

and female medical professionals from the 1920s. Such research findings were backed by claims of the medical professionals that diseases in pregnancy could be eradicated antenatally.

But the process of medicalisation of childbirth was never completed in colonial Bengal; there were important limitations. The thesis shows that ante-natal care in Bengal in the 1940s had less to do with technological dominance and more with pre-natal advice about diet and hygiene by health visitors during home-visits. Such schemes continued to be dominated by the Calcutta Municipal Corporation and to some extent by voluntary bodies such as the Bengal branch of the Indian Red Cross Society in the 1940s. Hospital based ante-natal care was extremely limited. For that matter, pelvimetry, urine test and inspection of female body were not yet introduced on a regular basis. Such tests were only available at a few institutions such as the Ramakrishna Sisumangal Pratisthan and the ante-natal clinics established under the auspices of the Bengal branch of the Indian Red Cross Society. The inadequacy of financial resources, certain systemic weaknesses in the hospital based ante-natal care and lastly, the lack of awareness of women of the value of ante-natal care constituted major constraints in limiting the scope of ante-natal supervision in Bengal.

Many of the endeavours made by medical professionals, voluntary bodies, public health authorities and the municipal corporation relied heavily on public subscription and hence, remained susceptible to financial constraints throughout the period under consideration. Maternal and child welfare continued to be brushed aside as relatively insignificant as late as the 1930s. Government prioritised other areas of public health over maternal and child welfare. The Government officials explained this lack of interest by citing prevalent social prejudices including the cultural practice of seclusion that, according to them, rendered any state sponsored initiative futile. But that argument certainly did not explain the state's apathy at a juncture when Bengali society was displaying greater 'hospital-mindedness' and willingness to accept western form of maternal care.

In conclusion therefore, the thesis identifies three trends in the professionalization of obstetrics in Bengal in the nationalist period, which continued in the post-colonial period. The first trend was the rising popularity of the hospital deliveries in the inter-war years. It could partly be ascribed to a growing number of maternity homes and hospitals in urban areas during this phase. The overarching factor was however, the growing middle class faith in allopathic medical system that was associated with modernity. The second trend was the

contribution of the male and female doctors towards expanding the sphere of professionalized obstetrics. In promoting research and proposing remedies to curtail maternal morbidity and mortality, the female doctors did not deviate greatly from male dominated medical perspectives and practices. Hence, the professional space that emerged in the inter-war years was more of a shared one than being demarcated along gender lines. Nationalist and eugenic concerns for loss of infant and maternal life led the middle class elites, nationalist leaders, Indian feminists and the medical profession to argue in favour of medical supervision over pregnancy and childbirth. The third trend was the urban rural divide. It can hardly be denied that maternal care in urban Bengal was being modernized and incorporated into western allopathic medical structure by the end of colonial rule. Western allopathic medical practice significantly touched upon the lives of the middle class women who, from the early part of the twentieth century, were beginning to recognize the worth of scientific management of birth. In the inter-war years, it drew the lower middle class women including slum dwellers, not strictly bound by the rules of purdah, into its fold. Yet modern maternity care remained confined to urban Bengal only. The rural areas remained largely outside the pale of institutionalized midwifery services where the dhais continued to dominate in the early post-colonial period.

Post-colonial scenario

The Government's apathy towards maternal health was part of its indifference towards public health in general, a trend that continued into the post-colonial period. Despite the centrality of public health issues in the National Planning Committee formed by the Indian National Congress in 1938 to outline the contours of an independent India, the health of the population as Sunil Amrith has argued, was merely an instrument for the post-colonial Government to promote its higher aim of creating a planned industrialized state. It was thus, a 'story of the instruments becoming an end in themselves and trumping the fundamental idioms, or values, of health.'¹ Contrary to the recommendations of the Bhore Committee that rural India be made the focus of the post-colonial health structure, what emerged instead was a 'doctor-based, urban-biased' health care system.²

¹ Sunil Amrith, 'Political Culture of Health in India: A Historical Perspective', *Economic and Political Weekly*, Vol.42, No.2, Jan 2007, p.119.

² Mohan Rao, *From Population Control to Reproductive Health: Malthusian Arithmetic* (New Delhi: Sage

In the arena of women's reproductive health, although maternal and child health care services were integrated by the Government of India into the First Five Year (1951-56) and Second Five Year Plans (1956-61), the spotlight shifted chiefly onto birth control and eugenics. It was argued that frequent pregnancies caused strain on the health of the mother leading to maternal and infant deaths and the birth of weak children. The key to safeguard maternal health, therefore, lay in controlling pregnancy by contraceptive methods. Demand was made for including birth control in maternal and child health services.³ Birth control had been the subject of fervent public discourse in the early part of the twentieth century but was promoted chiefly through elitist endeavours and mediation of international agencies and western social activists such as Marie Stopes, Margaret Sanger, Edith How-Martyn and Eileen Palmer. Towards the end of colonial rule, it was integrated into the National Planning Committee's efforts in the creation of a healthy race that would contribute towards national efficiency and development. Thus, birth control emerged as a key official policy of the post-colonial government. Population control through state intervention and deployment of modern reproductive technologies was endorsed by the First Five Year Plan in 1951 and received enthusiastic support from western aid agencies such as the Rockefeller Foundation, Ford Foundation and USAID.

However, birth control became the focal point of active state policy only from the Third Five Year Plan in 1961 and was administered under a separate department of Family Planning created in 1966. As Mohan Rao argues, family planning was allotted a budget of Rs 0.5 billion in the Third Five Year Plan as against a modest Rs 6.5 million in the First Five Year Plan, denoting its centrality in the health administration in post-colonial India at the expense of marginalizing other vital areas of public health.⁴ Maternal and child health was eventually integrated into family planning services during the Fifth Five Years Plan (1974-79) with the objective of providing minimum public services to pregnant women, lactating mothers and pre-school children. Yet as Rao argues, the entire public health infrastructure, in the post-colonial years, was dominated by concerns for population control and family planning

Publications, 2004), p.25.

³ Rao, *From Population Control to Reproductive Health*, pp.19-20.

⁴ Rao, *From Population Control to Reproductive Health*, p.32.

measures. The consequence was the spawning of a private sector in health that, according to Rao was largely 'exploitative' and 'unregulated'.⁵

What then was the status of medicalization of childbirth in post colonial Bengal? A brief review of the post-colonial maternal health services in West Bengal reveals a continuity of trend that confirms the findings of this thesis. A health survey conducted in West Bengal in 1955 by the Indian Statistical Institute revealed a 'very unsatisfactory' picture of the maternal health care services in Bengal. Despite claiming to be 'exploratory' in nature rather than being 'very reliable', the report nonetheless revealed that about 24% of the rural deliveries and 20% of the urban ones took place in Bengal without professional attendance of any sort whereas those attended by dhais constituted 76% of the rural deliveries and 25% of the urban ones.⁶ In the 1960s however, West Bengal was much ahead of other states in India in terms of hospital deliveries in urban areas.⁷

Moni Nag's comparative study of West Bengal and Kerala in the 1950s and 1960s is more revealing. Nag's research based on the data collected for the years 1959 and 1964 reveal that rural Bengal lagged behind Kerala in terms of utilization of preventive and curative medical health care facilities including maternal and health services. Nag has explained this difference in terms of the differing literacy levels of the two states and degree of the political awareness of the rural poor in demanding improved medical facilities. Bengal despite being ahead of most states in India in the sphere of higher education has historically harboured an urban-elitist bias that accounts for the neglect of primary education in the rural areas. Moreover, lower female literacy rates amongst the rural Bengali females also explain their diffidence in seeking maternal and child health services. This was in sharp contrast to Kerala which has the highest literacy rate in India.⁸ In terms of statistics also, the rural-urban divide in Bengal appears all the more glaring when compared to Kerala. For instance, the National Sample Survey⁹ data shows that for the years 1964-65, while the percentage of rural women attended

⁵ Rao, *From Population Control to Reproductive Health*, p.15.

⁶ S.J. Poti, M.V. Raman, S.Biswas and B.Chakraborty, 'A Pilot Health Survey in West Bengal:1955', *Sankhya, The Indian Journal of Statistics*, Vol.21, No.1/2, March 1959, p.146.

⁷ Moni Nag, 'Impact of Social and Economic Development on Mortality: Comparative Study of Kerala and West Bengal', *Economic and Political Weekly*, Vol.18, No.19-21, May 1983, pp.877-900.

⁸ Nag, 'Impact of Social and Economic Development on Mortality.'

⁹ National Sample Survey was the only organization in India after independence that collected socio-economic statistics on a national scale.

by physicians or qualified nurses in Kerala was 16%, it was only 3% in West Bengal. By contrast, in the urban areas, where the percentage of urban women attended by skilled professionals was 35% in Kerala, it was 42% in West Bengal. Similarly, while the percentage of institutionalised (hospital) birth was 13% in rural Kerala, it was a low 6% in rural Bengal. In the urban areas, by sharp contrast, Bengal recorded 50% institutionalized delivery whereas Kerala recorded only 32%. Thus, childbirth in Bengal remains more medicalized in the urban areas than in rural parts.

The most significant theme in the story of childbirth in post-colonial Bengal is therefore the urban middle class' inclination for institutional delivery and modern maternal care. Henrike Donner's ethnographic enquiry into the middle class birthing patterns in post-colonial Calcutta shows that by the 1960s, middle class families in Calcutta had largely accepted medical intervention in childbirth as safe. The mushrooming of a large number of private nursing homes in the 1960s, which ensured a more intimate doctor-patient relationship and less 'anonymity' than state run hospitals, drew more middle class women towards the medicalized model of childbirth.¹⁰ It falls in line with the central argument of this thesis about the hegemonic grip of western style midwifery on middle class mind. By the 1980s, birth in private nursing homes evolved into a status symbol for the middle-class in Calcutta, a trend accentuated by the privatization of medical care in the 1980s and 1990s. In the context of these major structural transformations, Donner has noted two major shifts in the birthing patterns of the Bengali middle class in the 1990s. The first was the shift in the site of birth from home to private nursing homes in a manner that established the 'supremacy of medicalized model of birth' so that 'deliveries and medical care for pregnant women became a matter of prestige for her affines'. The second shift was the rising preponderance of the interventionist obstetrics to the extent that it established caesarean section as the preferred form of delivery for middle class women.¹¹ Donner has explained the growing preference for caesarean section not only in terms of the broader structural changes but also very much in terms of the personal choice and agency of women that were intricately shaped by class and 'intra-household relations.'¹² Donner's findings fall in line with Brigitte Jordan's argument that the 'unquestioned superior status of biomedicine leads to a principled, rather than

¹⁰ Henrike Donner, *Domestic Goddesses: Maternity, Globalization and Middle-class Identity in Contemporary India* (London: Ashgate, 2008), p.104.

¹¹ Donner, *Domestic Goddesses*, p.117.

¹² Donner, *Domestic Goddesses*, p.115.

reasoned, devaluation of indigenous obstetric procedures and practitioners. Biomedicine in many developing countries has acquired a symbolic value that is independent of its use value. It has come to symbolize modernization and progress.¹³ Given Bengal's deep-rooted association with colonial modernity and western education, it is not hard to understand the reason behind the middle class's penchant for hospital deliveries.

A more recent and comprehensive picture of the status of medicalized model of birth in post colonial Bengal is provided by the findings of an extensive research conducted by the National Family Health Survey and the Reproductive and Child Health Programme in the 1990s. It reveals that in the 1990s, almost 60% of deliveries took place in homes, while 40% took place in hospitals. Bengal had a greater percentage of rural women reporting 'normal' delivery than urban women to the extent that the rate of normal birth sharply plummeted in the urban areas. It was estimated that only 833 of every 1000 urban mothers were reported to have 'normal' delivery against a national average of 891. More interestingly, operative interventions during delivery were found to be more frequent in urban areas than in rural areas. Thus, it was calculated that only 13 out of 1000 rural women in West Bengal reported operation during delivery against a national average of 23. In sharp contrast the overall trend of operative intervention during delivery was much higher in West Bengal than the national average. While 133 out of every 1000 urban mothers underwent operation during delivery, the national average was only 76.¹⁴ In the sphere of ante-natal care, while 75.3% of the Bengali pregnant women received at least one ante-natal check up which was considered better than all India average, only 19% of pregnant women went through a comprehensive ante-natal care programme. In this respect, West Bengal was behind 9 of the 15 major states in India.¹⁵

Given the dominance of hospital births in urban Bengal, it is no wonder that the feminist health movement that evolved in India in the 1980s, despite drawing succour from similar movements in the West, significantly diverged from the latter; the most crucial point of divergence was the palpable absence of any demand for home-birth or natural child birth movement. In the West, the central objective of the women's health movement that evolved

¹³ Brigitte Jordan, 'Technology Transfer in Obstetrics: Theory and Practice in Developing Countries', Michigan State University, Working Paper 126, September 1986, p.2.

¹⁴ Maitreya Ghatak, 'Health and Nutrition', in Jasodhara Bagchi ed., *The Changing Status of Women in West Bengal, 1970-2000: The Challenge Ahead* (New Delhi: Sage, 2005), p.44.

¹⁵ Ibid.

in the 1970s has been to wrest the control of birth management from the highly technologized, male controlled medical establishment and restore it to women. Feminist assertion of women's fundamental right to be in control of their body and reproduction was key to the home-birth movement that developed in America and other western countries. The health movement in India, on the other hand, crystallized around opposing invasive reproductive technologies that allegedly tampered with women's reproductive functions. The key issues were curbing unethical clinical trials of contraceptives, putting bans on hazardous drugs that could be used as abortifacients and most significantly, campaigning against medical procedures like amniocentesis that could be deployed for sex-determination and female infanticide.¹⁶

The thesis has shown the extreme polarization in colonial Bengal along urban rural lines that hampered the spread of modern maternity care amongst the masses. That trend has continued into the post-colonial period as well. While a section of the Bengali population represented by the educated middle class enjoy privileged access to technologized medical care and all that is less painful and less hazardous, the bulk of the population residing in the countryside remain outside the ambit of even the most elementary form of maternal services. Perhaps herein lay the greatest failure of nationalism, the failure to integrate the vast mass of people whom the nation claimed to represent. As Partha Chatterjee has aptly argued, 'The formation of a hegemonic "national culture" was necessarily built upon a system of exclusions. Ideas of freedom, equality and cultural refinement went hand in hand with a set of dichotomies which systematically excluded from the new life of the nation the vast masses of people whom the dominant elite would represent and lead, but who would never be culturally integrated with their leaders.'¹⁷

¹⁶ C.Sathyamala, Women's Health Movement in Independent India, in Amiya K. Bagchi and Krishna Soman ed., *Maladies, Preventives and Curatives: Debates in Public Health in India* (New Delhi: Tulika, 2005).

¹⁷ Partha Chatterjee, 'Nationalist Resolution of the Women's Question' in Kumkum Sangari and Sudesh Vaid ed, *Recasting Women: Essays in Indian Colonial History* (New Brunswick, New Jersey: Rutgers University Press, 1992), p.251.

Bibliography

Primary Sources

National Archives of India, New Delhi

Government of India, Proceedings of the:

- Home Department (Public Branch)
- Home Department (Medical Branch)
- Foreign and Political Department (Political Branch)

West Bengal State Archives (WBSA)

Government of Bengal, Proceedings of the:

- General Department (Medical Branch)
- General Department (Education Branch)
- Municipal Department (Medical Branch)
- Judicial Department (Medical Branch)
- Local Self-Government (Medical Branch)

General Committee of the Fever Hospital and Municipal Improvements, Miscellaneous Evidences and Papers, Appendix

Reports on Newspapers and Periodicals in Bengal, 1891.

Government Publications

Bengal Legislative Council Proceedings, 1930-1947.

Beverly, H. *Report: Census of Bengal, 1872* (Calcutta: Bengal Secretariat Press, 1872).

Bourdillon, J.A. *Report of the Census of Bengal, 1881*, vol.1 (Calcutta: Bengal Secretariat Press, 1883).

Maternal Mortality in Childbirth in India: A Summary of the Investigations conducted under the Indian Research Fund Association, 1925 (Calcutta: Government of India Central Publication Branch, 1928).

O'Malley, L.S.S. *Census of India, 1911, Volume VI: City of Calcutta, Part I* (Calcutta: Bengal Secretariat Book Depot, 1913).

Neal Edwards, M.I. *Report of an Enquiry into the Causes of Maternal Mortality in Calcutta* (Delhi, Government of India: Manager of Publications, 1940).

Report of the Health Survey and Development Committee, vol. I & 2 (Delhi, Government of India: Manager of Publications, 1946).

Annual Reports

Annual Reports on the Working of the Medical College, Calcutta, 1938-1939

Annual Reports of the Medical Schools in Bengal, 1918-1940.

Annual Reports of the All India Institute of Hygiene and Public Health, Calcutta, 1934-1946.

Annual Reports of the National Association For Supplying Medical Aid by Women to the Women of India, 1925-1945.

Annual Reports of the All India Women's Conference, 1927-1947.

Reports of the Health Officers of the Corporation, Calcutta, 1909-1947.

Reports of the Bengali Sanitary Board and the Chief Engineer, Public Health Department, 1925-1941.

Report of the Ramakrishna Mission: Sisumangal Pratisthan—A Maternity Hospital and Child Welfare Centre, for the Year 1939.

Annual Report of the Bengal Health Welfare Committee (Indian Red Cross Society) for the year 1936.

Medical Journals (English)

Calcutta Medical Journal (1910-1947)

Calcutta Medical Review (1939-1941)

Canadian Journal of Public Health (1944)

Journal of the Indian Medical Association (1930-1947)

Journal of the Association of the Medical Women in India (1908-1960)

The British Medical Journal (1870-1930)

The Indian Lancet (1890-1900)

The Indian Medical Gazette (1860-1940)

The Indian Medical Record (1917-1952)

The Medical Digest (1938)

Medical Journals and Health Magazines (Bengali)

Bishak Darpan (1900-1910)

Cikitsa Prakasa (1909-1920)

Cikitsa Sammilani (1880-1900)

Svasthya (1900-1920)

Svasthya Samacara (1912-1920)

Women's Magazines (Bengali)

Antahpur (1900-1905)

Bamabodhini Patrika (1867-1921)

Bangalakshmi (1926-1936)

Bangamahila (1875-1880)

Bharati (1890-1920)

Byabosa O Banijya (1934)

Mahila (1897)

Paricarika (1882-1903)

Other Periodicals and Newspapers

Amrita Bazar Patrika (1920-1947)

Calcutta Municipal Gazette (1925-1946)

Bengali Books and Pamphlets (Before 1947)

Balfour, M.I. *Bharater Desi Dhaidar Janya Dhatrisiksa* (A guide for Indian Midwives), (Calcutta, 1922).

Bandopadhyaya Harinarayan. *Strirogbidhayak* (The Diseases of Women-Medical and Surgical-with Special Reference to Indian Disease) Second Edition (Calcutta, 1896).

Bhattacharya, Kalikinkar. *Prasava-Vijnana* (A Treatise on Obstetrics) (Calcutta: U.N. Dhar & Co, 1936).

Biswas, Radha Raman. *Garbhini o Prasuti Cikitsa* (Treatment of Pregnant Woman and Infant) (Calcutta: Walker Homeo Hall, 1938).

Chattopadhyay, Khirodaproas. *Dhatribidya* (Midwifery), (Bhowanipur: Oriental Press, 1886).

Chowdhury, Jogendra Lal. *Adarsha Janani* (Ideal Mother) (Calcutta: Swarna Press, 1927).

Das, Sundari Mohan. *Saral Dhatri-Siksa, Kumar Tantra O Stri-Rog* (A Treatise on Midwifery, Infant -rearing and Female Diseases) (Calcutta: Premananda Das and Jogananda Das, 1940).

Dasgupta, Harimohan, *Ayurveda Dhatrividya Samgraha* (A Compilation of Ayurvedic Midwifery) (Berhampur, 1917).

Deb, Shib Chunder. *Sisu Palan* (Child rearing) (Serampore: Serampore Mission Press, 1857).

Devi, Anurupa. *Sisumangal* (Instruction in Child Welfare and rearing of children) (Calcutta: Bodhodoy Press, 1926).

Dhar, Sarachchandra. *Adarsha Janani* (Ideal Mother) (Dhaka: Nagendrachandra Roy, 1914).

Ghosh, Kiranchandra. *Stri-Cikitsa* (A Treatise on the Diseases of Women and Gynaecology) (Calcutta, 1922).

Ghosh, Kisorimohan. *Garbhini Cikitsa* (Homeopathic Treatment in Pregnancy) (Deoghar: The Criterion, 1914).

Ghosh, Mahendranath. *Saudaminira Dhatrisiksa Evam Garbhini o Prasuti Cikitsa* (A Work on Midwifery and Homeopathic Gynaecology) (Calcutta: The Author, 1909).

Khastagir, Annada Charan. *Manabjanmatattva, Dhatribidya, Nabaprasut Sisu o Strijatir Byadhisangraha* (A Treatise on the Science and Practice of Midwifery with Diseases of Children and Women), Second edition (Calcutta, 1878).

Mitra, Girindra Krishna. *Prasuti o Santan* (Mother and the child) (Calcutta: Bengal Publishing House, 1936).

Mukherji, Debendranath. *Khokar Ma* (The Baby's Mother: Hints to a Mother on the Feeding, Rearing and Diseases of Infants) (Calcutta: Aryan Press, 1902).

Mukherji, Kali Bhushan. *Matri Mangal* (A Play on Child and Maternity Welfare), (Calcutta: Bengal Government Press, 1925).

Mukhopadhyaya, Gangaprasad. *Matrishiksa* (A Treatise on Childbirth and Infant Management) (Calcutta: United Press, 1902).

Mukhopadhyaya, Jadunath. *Dhatrisiksha ebong prasutisikshaar thatkathopakathanchhale dhai ebong prasutidiger protiupadesh* (Educating the Midwife and the Pregnant woman written in the form of dialogue) (Chinsurah:1867).

Rai, Binode Bihari. *Ayurved Mote Sisupalan* (Infant Rearing according to Ayurveda) (Rajshahi: Binod Press, 1891).

Ray, Haranath. *Dhatri-Sikkha Samgraha* (Midwife's Vade-Mecum) (Calcutta: Bengal Law Report Press, 1887).

Roy, Devendranath. *Garhasthya Svasthyarakha Ebong Sochitro Dhatrisiksha* (Domestic Hygiene and Guide to Bengali Midwives) (Calcutta: S.K. Lahiri & Co, 1904)

Sarkar, Abhaykumar. *Prasuti paricharya o sisu palan* (Treatment of the pregnant woman and infant rearing) (Calcutta: The Calcutta Publishers, 1937).

Sengupta, Gourinath. *Sharirik Swasthya Bidhan* (A Treatise on Physical Health) (Calcutta: 1862).

Sengupta, Nagendranath. *Sochitro Daktari Sikkha* (Medical Education with pictorial illustrations) Fourth Edition (Calcutta: Nagendra Printing Works, 1905).

Sinha, Nityanand, *Saphala Stri Cikitsa* (A Treatise on the Treatment of Diseases of Women) (Audulbaria: Dr Dhirendranath Halder, 1915).

English Books Published Before 1947

Balfour, Margaret Ida and Young, Ruth. *The Work of Medical Women in India* (Oxford: Oxford University Press, 1929).

Bose, Shib Chunder. *The Hindoos As They Are: A Description of the Manners, Customs and Inner Life of Hindoo Society in Bengal*, 2nd Edition (Calcutta: Thacker, Spink & Co., 1883).

Centenary of the Medical College Bengal (Medical College: Centenary Volume Sub-Committee, 1935).

Das, Kedarnath. *A Handbook of Obstetrics for Students in India* (London: Butterworth, 1914).

Das, Kedarnath. *A Text Book of Midwifery for Medical Schools and Colleges in India*, 2nd Edition (Calcutta: Thacker, Spink & Co, 1926).

Dey, Lal Behary. *Bengal Peasant Life* (London: Macmillan, 1878).

Green-Armytage, V.B. *Tropical Midwifery: Labour Room Clinics* (Calcutta & Simla: Thacker, Spink & Co, 1928).

Krishna, Kumar Harendra. *A Lecture on Female Education in Bengal: Delivered at the Bethune Society* (Calcutta: Bengalee Press, 1863).

McClearey, G.F. *The Maternity and Child Welfare Movement* (London: P.S King & Son Ltd, 1935).

Mitra, Subodh, ed., *Transactions of the Obstetric and Gynaecological Congress* (Calcutta: 1941).

Mukherji, U.N. *Hindus-A Dying Race* (Calcutta, 1909).

Rajwade, Laxmibai. *Our Cause: A Symposium by Indian Women* (Allahabad: Kitabistan, 1938).

Urquhart, Margaret M. *Women of Bengal: A Study of the Hindu Pardanashins of Calcutta*, Second Edition (Calcutta: Association Press (Y.M.C.A), 1926).

Young, Ruth. *Ante Natal Work in India: A Handbook for Nurses, Midwives and Health Visitors* (Maternity and Child Welfare Bureau: Indian Red Cross Society, 1931).

Secondary Literature

Amin, Sonia Nishat, *The World of Muslim Women in Colonial Bengal, 1876-1939* (Leiden, New York, Koln: E.J.Brill, 1996).

Amrith, Sunil. 'Political Culture of Health in India: A Historical Perspective', *Economic and Political Weekly*, Vol.42, No.2, Jan 2007, pp.114-121.

Anderson, Warwick. *Colonial Pathologies: American Tropical Medicine, Race and Hygiene in the Philippines* (Durham: Duke University Press, 2006).

Arney, W.R. *Power and the Profession of Obstetrics* (Chicago and London: Chicago University Press, 1982).

Arnold, David. ed., *Imperial Medicine and Indigenous Societies* (Manchester: Manchester University Press, 1988).

----.____ 'Medical Priorities and Practice in Nineteenth Century British India', *South Asia Research*, Vol.5, No.2, November 1985, pp.167-183.

----.____ 'Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India, (Berkeley, Los Angeles: University of California Press, 1993).

----.____ 'Official Attitudes to Population, Birth Control and Reproductive Health in India, 1921-1946', in Sarah Hodges ed. *Reproductive Health in India: History, Politics, Controversies* (New Delhi: Orient Longman, 2006).

Arnold, David and Sarkar, Sumit. 'In search of rational remedies: Homeopathy in Nineteenth century Bengal' in Waltraud Ernst ed., *Plural Medicine: Tradition and Modernity, 1800-2000* (London and New York: Routledge, 2000).

- Bagchi, Amiya and Soman, Krishna. eds., *Maladies, Preventives and curatives: Debates in Public Health in India* (Kolkata: Tulika Books, 2005).
- Bagchi Jasodhara. 'Representing Nationalism: Ideology of Motherhood in Colonial Bengal', *Economic and Political Weekly*, Vol.25, No.42-43, Oct, 1990, pp.65-71.
- Bala, Poonam. *Imperialism and Medicine: A Socio-Historical Perspective* (New Delhi: Sage Publications, 1991).
- Bala, Poonam ed., *Contesting Colonial Authority: Medicine and Indigenous Responses in Nineteenth- and Twentieth Century India* (Plymouth: Lexington Books, 2012).
- Bannerji, Himani. 'Fashioning a Self: Educational Proposals for and by Women in Popular Magazines in Colonial Bengal', *Economic and Political Weekly*, Vol.26, No.43, Oct, 1991, WS56-WS60.
- .____ 'Projects of Hegemony: Towards a Critique of Subaltern Studies 'Resolution of the Women's Question'', *Economy and Political Weekly*, Vol.35, No.11, March 2000, pp. 902-920.
- Bashford Alison and Levine Philippa, ed., *The Oxford Handbook of the History of Eugenics*, (New York: Oxford University Press, 2010).
- Basu, Aparna and Ray, Bharati. *Women's Struggle: A History of the All India Women's Conference, 1927-2002* (New Delhi: Manohar, 2003).
- Bhattacharya, Malini and Sen, Abhijit, ed., *Talking of Power, Early Writings of Bengali Women* (New Delhi: Stree, 2003).
- Borst, Charlotte. *Catching babies: The professionalization of childbirth, 1870-1920* (Cambridge: Harvard University Press, 1995).
- Borthwick, Meredith. *The Changing Role of Women in Bengal, 1849-1905* (Princeton: Princeton University Press, 1984).
- Bose, Pradip Kumar ed., *Health and Society in Bengal: A Selection from Late 19th-Century Bengali Periodicals* (New Delhi: Sage, 2006).
- Branca, Patricia. *Silent Sisterhood: Middle Class Women in the Victorian Home* (London: Croom Helm, 1978).
- Broomfield, J.H. *Elite Conflict in a Plural Society: Twentieth Century Bengal* (Berkeley: California University Press, 1968).

Burton, Antoinette. 'Contesting the *Zenana*: The Mission to Make Lady Doctors for India, 1874-1885', *The Journal of British Studies*, Vol. 35, No. 3 (Jul., 1996), pp. 368-397.

Chatterjee, Partha, *Nationalist Thought and the Colonial World: A Derivative Discourse*, 2nd Ed.(London:Zed Books, 1993).

----.____ *Nation and its Fragments: Colonial and Post-Colonial Histories* (New Delhi: Oxford University Press, 1997).

----.____ 'Our Modernity' in Partha Chatterjee, ed., *Empire and Nation: Selected Essays* (New York: Columbia University Press, 2010).

Chakrabarty, Dipesh. 'The Difference: Deferral of (A) Colonial Modernity: Public Debates on Domesticity in British Bengal', *History Workshop*, No.36, Autumn, 1993, pp.1-34.

Chakraborty, Rachana, 'Women's Education and Empowerment in Colonial Bengal' in Hans Hagerdal ed., *Responding to the West: Essays on Colonial Agency and Asian Agency* (Amsterdam: Amsterdam University Press, 2009)

Chowdhury, Indira. *The Frail Hero and Virile History: Gender and the Politics of Culture in Colonial Bengal* (Delhi: Oxford University Press, 1998).

Das, Shinjini. 'Debating Scientific Medicine: Homeopathy and Allopathy in late Nineteenth Century Medical Print in Bengal', in *Medical History*, Oct 2012, Vol.56, No.4, pp.463-480.

Davin, Anna. 'Imperialism and Motherhood', *History Workshop*, No.5, Spring 1978, pp.9-65.

Donner, Henrike. *Domestic Goddesses: Maternity, Globalization and Middle-class Identity in Contemporary India* (London: Ashgate, 2008).

Donnison, Jean. *Midwives and Medical Men: A History of the Struggle for the control of Childbirth*, Second Edition. (London: Historical Publications Ltd, 1988).

Donegan, Jane B. *Women and Men Midwives: Medicine, Morality and Misogyny in Early America* (New York: Greenwood, 1978).

Dutta, Pradip Kumar. *Carving Blocs: Communal Ideology in Early Twentieth-Century Bengal* (New Delhi: Oxford University Press, 1999).

Engels, Dagmar. *Beyond Purdah? Women in Bengal, 1890-1930* (New Delhi: Oxford University Press, 1996).

- Forbes, Geraldine. 'Managing Midwifery in India', in D Engels and Shula Marks eds. *Contesting Colonial Hegemony: State and Society in Africa and India* (London: German Historical Institute, 1994).
- .____ 'Education to Earn: Training Women in the medical professions', in *Women in Colonial India: Essays on Politics, Medicine, and Historiography* (New Delhi: Chronicle Books, 2005).
- .____ 'Medicine for Women: "Lady Doctors" in the districts of Bengal, in *Women in Colonial India: Essays on Politics, Medicine, and Historiography* (New Delhi: Chronicle Books, 2005).
- Franda, Marcus F, 'West Bengal' in Myron Winer, *State Politics in India* (Princeton: Princeton University Press, 1968)
- Ghatak, Maitreya. 'Health and Nutrition', in Jasodhara Bagchi ed., *The Changing Status of Women in West Bengal, 1970-2000: The Challenge Ahead* (New Delhi: Sage, 2005).
- Ghose, Benoy, 'The Crisis of Bengali Gentility in Calcutta', *The Economic Weekly*, Vol.XI, Nos.26,27 &28, July 1957, pp.821-826.
- Ghosh, Anindita. *Behind the Veil: Resistance, Women and the Everyday in Colonial South Asia* (Delhi: Permanent Black, 2007).
- Gorman, Mel. 'Introduction of Western Science into Colonial India: Role of the CMC', *Proceedings of the American Philosophical Society*, Vol.128, No.2, Sept.1988, pp.276-298.
- Green, Monica H. 'Gendering the History of Women's Healthcare', *Gender and History*, Vol.20, No.3, November 2008, pp.487-518.
- Guha, Supriya. 'From Dais to Doctors: The Medicalisation of childbirth in colonial India' in Lakshmi Lingam ed., *Understanding Women's Health Issues: A Reader* (New Delhi: Kali, 1998), pp.145-162.
- .____ "'The best Swadeshi': Reproductive health in Bengal, 1840-1940' in Sarah Hodges, ed., *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).
- Gupta, Charu. *Sexuality, Obscenity and Community: Women, Muslims and the Hindu Public in Colonial India* (New York: Palgrave, 2002).

Harrison, Mark. *Public Health in British India: Anglo-Indian Preventive Medicine 1859-1914* (Cambridge: Cambridge University Press, 1994).

Headrick, Daniel R. *Tools of Empire: Technology and European Imperialism in the Nineteenth century* (Oxford: Oxford University Press, 1981).

Heimsath, Charles. 'The Origin and Enactment of the Indian Age of Consent Bill, 1891', *The Journal of Asian Studies*, Vol.21, No.4, August 1962, pp.491-504

Hochmuth, Christian. 'Patterns of Medical Culture in Colonial Bengal, 1835-1880', *Bulletin of the History of Medicine*, Vol.80, No.1, Spring, 2006, pp.39-72.

Hollen, Van Cecilia. *Birth on the threshold: Childbirth and Modernity in South India* (New Delhi: Zubaan, 2003).

Jaggi, O.P. *History of science technology and medicine in India* (Delhi: Atma Ram, 1981).

Jayapalan, N. *Modern Governments and Constitutions*, Vol.II (New Delhi: Atlantic Publishers, 2002).

Jeffery, Roger. *The Politics of Health in India* (Berkeley, Los Angeles and London: University of California Press, 1988).

Jordan, Brigitte. 'Technology Transfer in Obstetrics: Theory and Practice in Developing Countries', Michigan State University, Working Paper 126, September 1986.

Jordanova, L.J. 'Natural Facts: a historical perspective on science and sexuality', in Carol P.MacCormack and Marilyn Strathern, ed., *Nature, Culture and Gender* (Cambridge: Cambridge University Press, 1980).

Karlekar, Malavika. 'Kadambini and the Bhadraklok: Early debates over women's education in Bengal', *Economic and Political Weekly*, Vol.21, No.19, April, 1986, pp.25-31.

Klein, Ira 'Death in India, 1871-1921', *The Journal of Asian Studies*, Vol.32, No.4, August 1973, pp.639-659.

Kopf, David, *Brahmo Samaj and the Shaping of Modern Mind* (New Jersey: Princeton University Press, 1979).

Kopf, David. *British Orientalism and the Bengal Renaissance: The Dynamics of Indian Modernization 1773-1835* (Berkeley and Los Angeles: University of California Press, 1969).

Kumar, Anil. *Medicine and the Raj: British Medical Policy 1835-1911* (New Delhi: Sage, 1998).

Kumar, Deepak. 'Calcutta: The Emergence of a Science City (1784-1856)', *Indian Journal of History of Science*, Vol.29, No.1, Jan-Mar, 1994.

----.____ *Science and the Raj, 1857-1905* (Delhi: Oxford University Press, 1995).

----.____ 'Medical Encounters in British India, 1820-1920', *Economic and Political Weekly*, Vol.32, No.4, Jan.1997, pp.166-170.

Kumar, Radha. *The History of Doing: An Illustrated Account of Movements for Women's Rights and Feminism in India, 1800-1900* (New Delhi: Zubaan, 1993).

Kundu, Nitai, 'The Case of Kolkata, India' in UN Habitat, *Global Report on Human Settlements: The Challenge of Slums*, Part IV 'Summary of City Case Studies' (London: Earthscan 2003).

Lal, Maneesha. 'The Politics of Gender and Medicine in Colonial India: The Countess of Dufferin Fund, 1885-1888', *Bulletin of the History of Medicine* 68 (Spring 1994), pp. 29-66.

----.____ 'Purdah as Pathology: Gender and Circulation of Medical Knowledge in Colonial India', in Sarah Hodges (ed.), *Reproductive Health in India: History, Politics, Controversies* (Delhi: Orient Longman, 2006).

Lang, Sean. 'Drop the Demon Dai: Maternal Mortality and the State in Colonial Madras, 1840-1875', *Social History of Medicine*, Vol.18, No.3, 2005, pp.357-378.

----.____ 'Saving India through its Women', *History Today*, Vol.55, No.9, September 2009, pp.46-51.

----.____ 'Colonial Compassion and Political Calculation: The Countess of Dufferin and her Fund' in Poonam Bala ed., *Contesting Colonial Authority: Medicine and Indigenous Responses in Nineteenth- and Twentieth Century India* (Plymouth: Lexington Books, 2012).

Leavitt, Judith Walzer. 'Birthing and Anaesthesia: The Debate Over Twilight Sleep', *Signs*, Vol.6, No.1, Autumn 1980, pp.147-164.

Lewis Jane. *The Politics of Motherhood: Child and Maternal Welfare in England, 1900-1939*, (London: Croom Helm, 1980).

Loudon, Irvine. *Medical Care and the General Practitioner, 1750-1850* (Oxford: Clarendon Press, 1986).

- .____ *Death in Childbirth: An International Study of Maternal Care and Maternal Mortality, 1800-1950* (Oxford: Clarendon Press, 1992).
- MacLeod Roy and Lewis Milton eds., *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion* (London: Routledge, 1988).
- Mani, Lata. *Contentious traditions: The debate on Sati in colonial India* (Berkeley: University of California Press, 1998).
- Marshall, P.J. *Bengal: The British Bridgehead: Eastern India, 1740-1828*(Cambridge: Cambridge University Press, 1987).
- McGuire, John. *The Making of a Colonial Mind: A Quantitative Study of the Bhadraklok in Calcutta, 1857-1885* (Canberra: Australian National University, 1983).
- McTavish, Lianne. *Childbirth and the Display of Authority in Early Modern France* (Aldershot: Ashgate, 2005).
- Mitchell Juliet and Oakley Ann. *The Rights and Wrongs of Women* (Middlesex: Penguin Books, 1976).
- Misra, B.B. *The Indian Middle Classes: Their Growth in Modern Times* (London, New York, Bombay: Oxford University Press, 1961).
- Morantz-Sanchez, Regina Markell. *Sympathy and Science: Women Physicians in American Medicine* (New York, Oxford: Oxford University Press, 1985).
- Morehouse, Ward. *Science in India* (Bombay: Administrative Staff College of India, 1971).
- Moscucci, Ornella. *The Science of Woman: Gynaecology and Gender in England, 1800-1929*(Cambridge: Cambridge University Press, 1990).
- Mukharji, Projit Bihari. *Nationalizing the Body: Medical Market, Print and Dakari Medicine*, (London: Anthem Press, 2011).
- Mukherjee, S.N. 'The Bhadrakloks of Bengal' in Dipankar Gupta ed., *Social Stratification* (Delhi: Oxford University Press, 1991).
- Murshid Ghulam. *Reluctant Debutante: Response of Bengali Women to Modernization, 1849-1905* (Rajshahi: Sahitya Samsad, 1985).

Nag, Moni. 'Impact of Social and Economic Development on Mortality: Comparative Study of Kerala and West Bengal', *Economic and Political Weekly*, Vol.18, No.19-21, May 1983, pp.877-900.

Nath, Shankarkumar. *Kolkata Medical College Gorar Katha o Pundit Madhusudan Gupta* (Calcutta: Sahitya Sansad, 2014).

Oakley, Ann. *The Captured Womb: A history of the medical care of pregnant women* (Oxford: Basil Blackwell, 1984).

Papps Elaine. *Doctoring childbirth and regulating midwifery in New Zealand: A Foucauldian Perspective* (Palmerstone North: Dunmore Press, 1997).

Porter, Dorothy and Porter, Roy. *Patient's Progress: Doctors and Doctoring in Eighteenth Century England* (Stanford: Stanford University Press, 1989).

Porter, Roy. *Health for Sale: Quackery in England, 1660-1850* (New York: Manchester University Press, 1989).

----.____ *The Greatest Benefit to Mankind: A Medical History of Humanity from Antiquity to the Present* (London: Harper Collins, 1997).

Prakash Gyan. *Another Reason: Science and Imagination of Modern India* (Princeton: Princeton University Press, 1999).

Ramanna, Mridula. 'Indian Practitioners of Western Medicine: Grant Medical College, 1845-1885', *Radical Journal of Health*, no.1, 1995, pp.116-135.

----.____ *Health Care in Bombay Presidency, 1896-1930* (Delhi: Primus Books, 2012).

Ramusack, Barbara.M. 'Embattled Advocates: The Debate over Birth Control in India, 1920-1940' *Journal of Women's History*, Vol.1, No.2, 1989, pp.34-64.

Rao, Mohan. *From Population Control to Reproductive Health: Malthusian Arithmetic* (New Delhi: Sage Publications, 2004).

Ray Bharati. 'Women of Bengal, Transformation in ideas and ideals, 1900-1947', *Social Scientist*, Vol. 19, No.5/6, May-June 1991, pp.3-23.

----.____ *Shekaler Nari Siksha: Bamabodhini Patrika (1270-1399)*, (Calcutta University: Women's Studies Research Centre, 1998).

- Ray, Kabita. *History of Public Health: Colonial Bengal, 1921-1947* (Calcutta: K.P. Bagchi, 1998).
- Ray, Rajat Kanta, ed., *Mind Body and Society: Life and Mentality in Colonial Bengal* (Calcutta: Oxford University Press, 1995).
- Rosselli, John. 'The Self-Image of Effeteness: Physical Education and Nationalism in Nineteenth Century Bengal', *Past and Present*, Vol No. 86, Feb.1980, pp. 121-148.
- Roy, Manisha. *Bengali Women* (Chicago and London: Chicago University Press, 1975).
- Sangari, Kumkum and Vaid, Sudesh ed., *Recasting Women: Essays in Indian Colonial History*, (New Brunswick, NJ: Rutgers University Press, 1990).
- Sarkar, Sumit. *Writing Social History* (New Delhi: Oxford University Press, 1997).
 ----.____ *The Swadeshi Movement in Bengal, 1903-1908* (New Delhi: Permanent Black, 2010).
- Sarkar, Tanika. 'Nationalist Iconography: Image of Women in 19th century Bengali Literature', *Economic and Political Weekly*, Vol.22, No.47 (November 1987), pp.2011-2015.
 ----.____ *Hindu Wife, Hindu Nation* (New Delhi: Permanent Black, 2001).
- Selin, Helaine. *Encyclopaedia of the History of Science, Technology and Medicine in Non-Western Cultures*, Vol.I (The Netherlands: Kluwer Academic Publishers,1997).
- Sen, Amiya P. *Hindu Revivalism in Bengal, 1872-1905: Some Essays in Interpretation* (Delhi: Oxford University Press, 1993).
- Sen, Krishna. 'Lessons in Self-Fashioning: "Bamabodhini Patrika" and the Education of Women in Colonial Bengal' *Victorian Periodicals Review*, Vol.37, No.2, The Nineteenth Century Press in India, summer 2004, pp.176-191.
- Sen, Srabani. 'The Asiatic Society and the Sciences in India, 1784-1947', in Uma Dasgupta ed., *Science and Modern India: An Institutional History, c.1784-1947*, (New Delhi: Centre for Studies in Civilizations, 2011).
- Sen, Samita. *Women and Labor in Late Colonial India: The Bengal Jute Industry* (Cambridge: Cambridge University Press, 1999).
- Sen, Samita and Das, Anirban eds., "A History of the CMC and Hospital, 1835-1936" in Uma Dasgupta Ed., *Science and Modern India: An Institutional History, c.1784-1947*, (New Delhi: Centre for Studies in Civilizations, 2011).

- Sen, S.N. *History of Freedom Movement in India, 1857-1947* (New Delhi: New Age International Publishers 1997).
- Sevea, Iqbal Singh, *The Political Philosophy of Muhammad Iqbal: Islam and Nationalism in Late Colonial India* (New York: Cambridge University Press, 2012)
- Singleton, Mark. 'Yoga, Eugenics and Spiritual Darwinism in the Early Twentieth Century', *International Journal of Hindu Studies*, Vol.11, No.2, August 2007, pp.125-146.
- Sinha, Mrinalini. *Colonial Masculinity: The 'Manly Englishman' and the 'effeminate Bengali' in the late nineteenth century* (Manchester and New York: Manchester University Press, 1995).
- .____ *Mother India: Selections from the Controversial 1927 Text* (Delhi: Kali for Women Press, 1998).
- .____ 'Gender in the critiques of Colonialism and Nationalism: Locating the Indian Woman' in Tanika Sarkar & Sumit Sarkar ed., *Women and Social Reform in Modern India: A Reader* (Indiana: Indiana University Press, 2008).
- Smith, Philippa Mein. *Maternity in dispute: New Zealand, 1920-1939* (Department of Internal Affairs: Historical Publications Branch, 1986).
- Soman, Krishna. 'Women, Medicine and Politics of Gender: Institution of Traditional Midwives in Twentieth Century Bengal', *Institute of Development Studies*, Occasional Paper 32, November 2011.
- Viswanathan, Gauri. *Masks of Conquest: Literary Study and British Rule in India* (New York: Columbia University Press, 1989).
- Walsh, Judith. 'The Virtuous Wife and the Well-Ordered Home: The Reconceptualization of Bengali Women and their Worlds', in Rajat Kanta Ray ed., *Mind, Body and Society: Life and Mentality in Colonial Bengal*, (Calcutta: Oxford University Press, 1995).
- Wilson, Adrian. *The Making of Man-Midwifery: Childbirth in England, 1660-1770*, (London: UCL Press, 1995).
- Wilson, Philip K. ed., *Childbirth: The Medicalization of Obstetrics: Personnel, Practice and Instruments* (New York and London: Garland Publishinh House, 1996).
- Wood, Carl, ed., *Fifth World Congress of Gynaecology and Obstetrics* (Sydney: Butterworths, 1967).

Unpublished PhD Dissertation

Guha, Supriya. 'A History of the medicalization of childbirth in Bengal in the late nineteenth and early twentieth centuries', PhD dissertation (University of Calcutta, 1996).

Mitra, Samarpita. 'The Literary Public Sphere in Bengal: Aesthetics, Culture and Politics, 1905-1939', PhD Dissertation (University of Syracuse, 2009).

Paul, Chandrika. 'The uneasy alliance: The work of British and Bengali medical professionals, 1870-1935', PhD Dissertation (University of Cincinnati, 1997).