

Invisible women in Bangladesh: Stakeholders' views on infertility services

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Introduction

Infertility remains a neglected issue in Bangladesh's reproductive health policy; instead, the emphasis has always been on the problem of overpopulation. As a result the dominant state ideology in Bangladesh is related to controlling fertility, and the implementation of Family Planning programmes has become a success story for the country (Ahmed and Chowdhury, 1999; Country Report, 2006). Although no epidemiological study has been conducted in the national level to know the prevalence rate of infertility in Bangladesh, a global review of infertility from the World Fertility Survey and others estimated infertility rates in South Asian countries stated 4% in Bangladesh. Another estimate of overall primary and secondary infertility in South Asia, on the basis of women at the end of their reproductive lives in the age group 45-49 years, suggests an infertility rate of approximately 15% in Bangladesh (Vaessen, 1984; Farely, 1988, cited in Kumar, 2007), which is the highest among all South Asian countries.

There is evidence that potential causal factors of infertility are also widely present in Bangladesh. Studies showed that in the South Asian region reproductive health problems such as sexually transmitted diseases (STD), urinary tract infections (UTI), reproductive tract infections (RTI), unhygienic delivery, postpartum infection and unsafe obstetric and abortion procedures are linked to sepsis and pelvic infections, which can cause infertility (Unisa, 2010; Ali et al., 2007; Prasad 2005; WHSEA, 2002a; Jejeebhoy, 1998). A report by WHSEA (2002b) suggested that the prevalence of STDs in Bangladesh is still unknown, but following their analysis of small scale studies conducted between 1989 and 1997, Bangladesh has a high prevalence of STDs. Other investigation reported that the estimated number of

people with STDs in the country is around 2.3 million (SDNP-2002). A recent study of truck drivers in Bangladesh found a high prevalence of the herpes simplex virus (HSV-2), at 25.8% (Gibney et al., 2002). WHSEA's (2002b) report also suggested that in Bangladesh the prevalence of RTIs amongst women is 56% in rural and 60% in urban settings.

It is noted in addition, that because of the under-reporting of secondary infertility in health facility based studies, the information that is available on causes of infertility is likely to consistently underestimate the role of infections, which are the most frequent cause of secondary infertility, 55% as reported by WHSEA (2002a). Compounding the problem is the increasing number of abortions and unhygienic birth practices in Bangladesh, which can also result in a higher likelihood of pelvic infections. It has been observed that only 5% of births in Bangladesh are attended by a health professional (WHSEA, 2002b) and abortion practice have increased in recent times in the country (Rahman, 2000). A cross-sectional study revealed that 66% of the women surveyed reported that they had experienced at least one complication during their last pregnancy and/or childbirth (Ahmed et al., 1998).

Furthermore, the other indirect causal factors of infertility are also worth mentioning here, such as poverty, tuberculosis, malnutrition, anaemia, and low-birth-weight. For example it is already acknowledged that poverty increases the risk of infertility in many ways, for example, the scarcity of water and the lack of access to nutrition and health care make women more vulnerable to RTI, which may cause secondary infertility among them (Unnithan-Kumar, 2001). This is the case in Bangladesh, where 36% of people live below the poverty level. Also a number of studies done in India found that tuberculosis is another indirect causal factor of female infertility

(Haque, 2002; Kumar, 2008). Haque (2002) reported globally Bangladesh ranks as the fourth highest country in terms of the prevalence of TB, and contains 3.6% of the TB cases diagnosed worldwide. There is also evidence of the effect of maternal nutritional status, e.g. weight and mid-arm circumference, and anaemia on the incidence of sterility (Jejeebhoy, 1998; Singh, 2007). According to a Human Development report, 59% of young girls suffer from chronic malnutrition in Bangladesh (WHSEA, 2002b). This is further confirmed through the Government of Bangladesh Country Report (2000), which stated that approximately 70% of pregnant mothers in Bangladesh suffer from malnutrition and high rates of anaemia (Country Report, 2000). Another factor contributing to infertility is low-birth-weight, with 50% of all infants in Bangladesh being born underweight (Fuchs, 1992).

In addition to these practical issues, infertility has a deep cultural dimension. Whilst Bangladesh is an anti-natalist state, the society is pro-natalist. For various economic, cultural and religious reasons children are necessary and extremely valued in this society. Consequently, being childless has a wide range of consequences for both rural and urban Bangladeshi women, in terms of social stigma, familial violence, and psychological or economic disadvantages, with the essence of all these consequences being 'suffering'. Studies show that in a patriarchal society like Bangladesh where motherhood is synonym of womanhood, childlessness destroys the identity of womanhood, which results in marginalisation (Nahar and Richters, 2011; Nahar, 2010b, 2010c, 2012).

However, despite the fact that there are significant potential risk factors for infertility in Bangladesh, and that infertility results in a serious disruption to people's/women's wellbeing, there are hardly any services available for infertility in Bangladesh (UNFPA, 1996). In a comparatively recent discussion of maternal health in Bangladesh, Graham (2001), by using the source of 'Bangladesh Demography and Health Survey' data, provided a list of reproductive health care services in Bangladesh. There too was no mention of infertility service in the list.

A more recent qualitative exploration, the experiences of infertile women in terms of their health seeking in Bangladesh, found that there are hardly any public or NGO services for infertile people/women. Along with a wide range of informal private services, there are only a few biomedical services available in the private sector, and these are expensive (Nahar, 2010a). With this as a backdrop, in this paper I will explore the stakeholders' views on the lack of infertility services in Bangladesh.

Methods

This paper is based on a larger ethnographic study carried out in Bangladesh in 2003-2004, which explored cultural constructions and the consequences, resilience of infertility amongst rural and urban childless women (Nahar, 2007). The current paper is mainly based on key-informant interviews. Key-informant interviews are qualitative in-depth interviews with the individuals who are likely to provide needed information, ideas, and insights on a particular subject.

The 24 key-informants included stakeholders from government and non-government organisations, such as GO and NGO programme implementers (#6), policy makers (#4), donors (#3) and public health researchers (#2). The result of the interviews provided broader socio-political understanding of the reasons behind the unavailability of infertility services in Bangladesh. In addition, to understand the reasons behind the availability of infertility services in the private sector, private biomedical infertility practitioners (#3) and verities of informal providers (#6) were also interviewed. The key-informant interviews took place in the stakeholders' office or health centres. Each interview lasted at least for an hour. An open ended 'guideline' was used for interviewing; the topic list was altered for different groups.

Results

In this section, I will present the stakeholders' views of the reasons for including or not including infertility in the policy or services of their respective sectors. These views will be navigated by means of a vertical grouping of key stakeholders involved in reproductive health issues. I start my journey at the very bottom level of the ladder of stakeholders, and reach the top by the end of my journey.

Reasons behind not providing infertility services in the public sector

Implementers' views

All the interviewed government and NGO representatives acknowledged the need for infertility services. Since they worked at the grass roots level, they frequently came across the consequences of childlessness and had noticed the harassment of childless people in terms of health seeking. However regarding the reasons for not including infertility in the agenda, both government and NGO representatives mentioned that they could not include infertility

in their programmes because infertility was not a priority issue for the Bangladesh government's health agenda, and nor were donors interested in it. NGO representatives added that infertility services require specialist training for the doctors, pathology lab workers and the organisations did not have these human resources.

However, it is important to note that programme implementers are placed at a level below the policy makers, so they are not in a position to influence national decisions on health interventions, including infertility services. I therefore then turned to the Bangladeshi health policy makers in order to investigate the perspectives of people who do have the power to influence.

Policy makers' views

It was found that policy makers including the directors of different relevant Wings of Health Ministry of Bangladesh Government and the NGO Reproductive Health Programme directors did not have any plans to include infertility in their agenda in the near future. The major constraint mentioned by the government representatives was a limit in resources and having other priority issues. The representatives strongly believed that there were many other priority issues within reproductive health that needed to be focused on, for example fertility control and maternal health. As one of the government representative said, "There is no money to provide any other additional services within this budget. Due to fund limitations, we are even struggling with our existing family planning programme, the most crucial problem of the country".

The NGO policy makers mentioned other reasons for not including infertility, such as an absence of technical facilities within their resources, not having a person/department to refer to in the district level government hospital for infertility treatment. Moreover NGOs follow the principle of 'prevention' which is another reason for excluding infertility but including STDs and maternal health. Finally, the main reason NGOs are prevented from including infertility services in Bangladesh according to the NGO policy makers is the lack of willingness of both the donors and the government. A representative of an NGO stated:

"Our Government does not or cannot do any research in order to fix priorities. Whatever donors want, that becomes our area of interest. This is how donors give emphasis to some issues and other issues remain ignored. Sometimes donors do not consider the local reality, they just make a general proposal for every country. I believe infertility is ignored for this reason as well".

With this in mind, I explored the views of donor agencies.

Views of donor agencies

The representatives of prominent donors of reproductive health in Bangladesh were interviewed (¹). They did not consider that infertility could be included in the reproductive health programmes in Bangladesh in the near future. None of the donor representatives believed that infertility was a priority issue for the country. The donor representative from donor (A) stated that they have other priority issues to address at the moment. She said, "Infertility is out of our mandate at this moment". She suggested donor (B), the major fund-giving organisation in Bangladesh, could play a bigger role in tackling infertility.

I subsequently talked to donor (B)'s reproductive health programme head. According to her, one of the major reasons for not providing funds for infertility care in Bangladesh is that Bangladesh has neither the technical expertise in the field of infertility, nor the infrastructure that would be required for setting up infertility clinics. It would require huge investments to address this issue. Moreover, she remarked that to set up a programme one has to justify the problem by showing the incidence and prevalence rates, especially in a resource-poor country like Bangladesh. Unfortunately, no information on the infertility rate is available in Bangladesh. She added that because of the resource constraints, donor (B) funds for reproductive health issues are applied on a priority basis. According to her, infertility is not a problem for the majority of the population, and so it is not a priority issue for the country. However donor (B) representative suggested donor (C) might have a plan on this, as family planning is their main area of activity.

At this point I went to interview donor (C)'s country representative. This person informed me that donor (C) never make any decisions about fixing priorities for any country. It was the Bangladesh Needs Assessment Team who had prioritised maternal mortality reduction for the country in the last headquarter meeting, which she saw as logical considering that Bangladesh has a maternal mortality rate of 322 per 100,000 live births. As a result most of donor (C)'s funds go to the programmes that address this issue and family planning programmes. The representative said, "We do not fund infertility services. We think that high maternal mortality and morbidity is still a

¹ Donors' fictive names are used as A, B and C.

problem for Bangladesh and that needs to be addressed first. Moreover, overpopulation is a constant threat, and infertility is not a threatening issue for the country”. She further added that donor (C) would need to know the prevalence rate of infertility before they began to address it. Therefore a survey report with statistics would be needed, which currently does not exist.

Researchers opinions

At this stage I continued my journey by interviewing the researchers from the leading international health research institute in Bangladesh, one of them is a demographer who works mainly on family planning, the other one is a social scientist who works on health equity issues. Both of them highlighted how government and donors prioritize fertility control as their health agenda pushing aside issues like infertility. In addition, they also mentioned some methodological complications of epidemiological or demographic research on infertility. For example, the definition of infertility in demography itself may exclude some infertile women from the survey; thus

under report prevalence rate. One researcher thought that the traditional approach of public health, which focuses on mortality reduction and fertility control, and conceptualizes women’s health as maternal health, is the reason for organisations ignoring infertility. Figure 1 shows the top down approach of decision-making of infertility services in the public sector in Bangladesh.

Motives behind providing infertility services in private sector:

In a context where both the public health services provided by the government and NGOs in the formal sector remain silent about infertility and offer hardly any services to the sufferer, it is the private health providers of the formal and informal sectors that have filled the gap. In order to gain a better understanding of the infertility service sector dynamics I explored the motives of private sector providers for providing services for childlessness. Figure 2 shows the availability of infertility services in the private sector in Bangladesh.

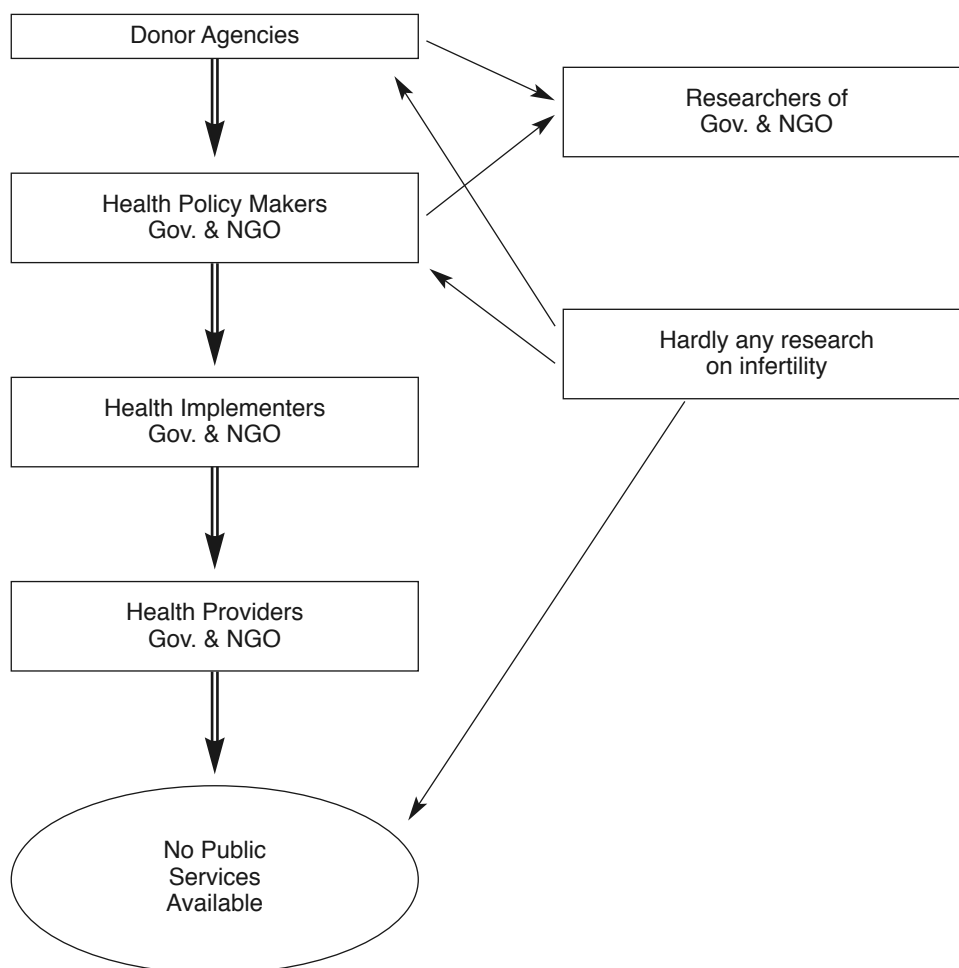


Fig. 1. — Top down approach of decision-making of infertility services in the public sector in Bangladesh

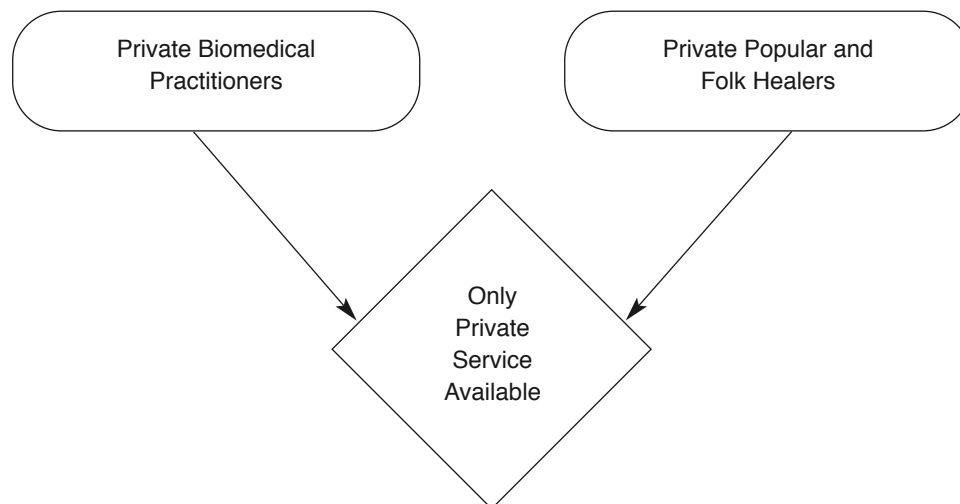


Fig. 2. — Availability of infertility services in the private sector in Bangladesh

Private practitioners in the formal sector

Although they are few in number, private biomedical doctors are the major infertility service providers in the formal sector. I interviewed specialist physicians who were providing infertility treatments in the private formal sector, and they mentioned different reasons for becoming involved in infertility treatment. They admitted that their involvement was mainly for business purposes, but also partly for humanitarian reasons. One specialist, who was one of the pioneers of assisted reproductive technologies (ARTs) in Bangladesh, explained his reasons as follows:

“As a gynaecologist I frequently used to encounter infertile cases, but I could not do anything for them. At best I could diagnose which one of the couple had the problem. But I couldn’t do anything; I also couldn’t refer them, as there was no facility anywhere to treat infertility. I really felt pity for these couples. Finally I decided that I should do something for them. I then trained myself in Europe and started treating infertile people with various assisted reproductive technologies. I am happy that as almost none of the government facilities are able to provide any service to infertile couples, I am able to provide at least something”.

The second specialist took up infertility because it was a promising career option. The third specialist also mentioned her professional career as a reason for taking up infertility treatment. She said that as the arena of infertility was relatively empty, it was a potential field of business.

The informal sector

I mentioned earlier that for the rural population, infertility treatment in the formal (private) sector is

neither affordable nor accessible (Nahar, 2010a). The treatment that is available in the rural informal sector is mainly in the form of herbs, amulets, holy water (enchanted with Quranic or other religious verses), certain drugs and various spiritual rituals.

All the rural traditional providers stated that they did not intend to become specialists in infertility treatment, but obtained their knowledge of this treatment along with other treatments when they were trained by their *Gurus*. They therefore treat infertility alongside other diseases. They also mentioned that folk providers are sometimes more interested in infertility treatment because the financial rewards for a positive treatment outcome are much better than for any other illness. All of them however mentioned that they provided infertility treatment to make God happy by helping helpless people. Ultimately, the thanks goes to God for a positive outcome. One old Hindu provider said that he never claims any financial reward when providing infertility treatments because he believes that it is God (*Eshwar*) who creates babies and God deserves the thanks. But if women give him presents after having a baby he does not refuse them. Figure 3 shows the reasons for providing infertility services in the private sectors in Bangladesh.

Discussion

It is clear from the reactions of policy makers, researchers, and donors that infertility is not currently on anyone’s agenda in Bangladesh. It is obvious that the government and NGO policy makers’ and donors’ main concern is to emphasise family planning and maternal & child health care. This is because, according to them, overpopulation, as well as high

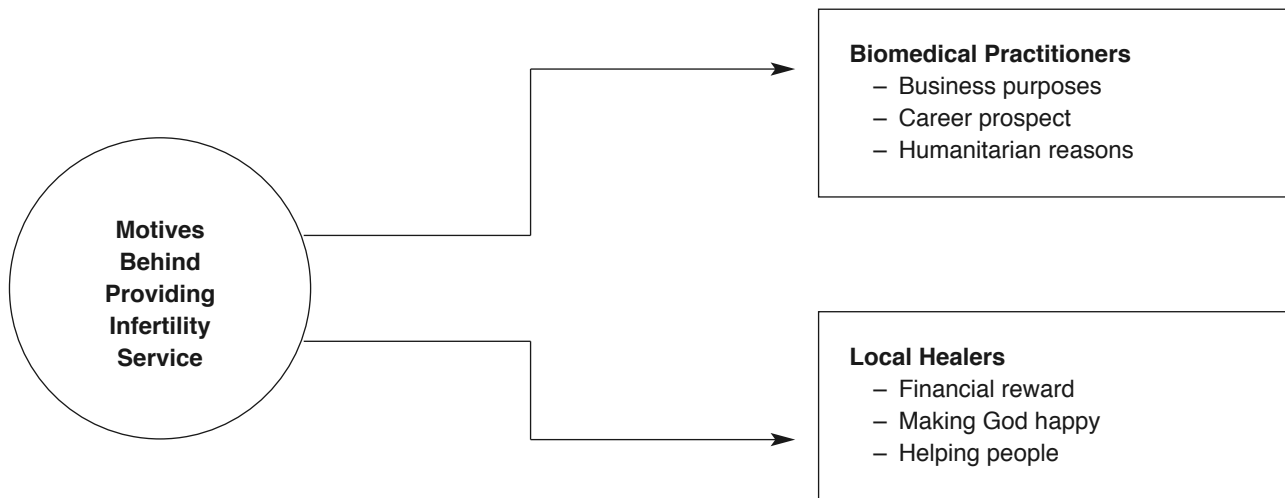


Fig. 3. — Reasons for providing infertility services in the private sectors in Bangladesh

maternal and infant mortality and morbidity, is considered the main public health problem of the country. As infertility is not a highly prevalent condition in the country (disregarding that no data are available) and there are constraints in terms of the availability of resources and technical experts, infertility has not ever been considered as an issue for public health intervention. The motive for infertility care among biomedical private providers is mainly profit making, and as a result it is only affordable to the urban, wealthy population; the rest must seek treatment from informal healers. A study done among slum dweller married adolescent women in Dhaka, Bangladesh stated that due to the lack of infertility service in the public sector, the understandings and health seeking practice surrounding infertility among the deprived population is guided by various superstitious beliefs (Rashid, 2007).

However, there are also counterarguments in favour of providing infertility services in a developing country like Bangladesh. A number of authors have shown how health policies are created in developing countries by means of a top down approach, and how this is influenced by the ideologies of powerful, developed countries. Rowland (1996) and Akhter (1992) have shown how the fear of a population boom generated in the 1970s by a few Western scholars still influences the current population policies in Bangladesh. The agenda of fertility control has thus overshadowed other issues of reproductive health in Bangladesh, resulting in the current lack of infertility services.

On the other hand, prioritising public health issues based only on epidemiological indices is also problematic; as epidemiological indices do not capture psychological and socio-cultural responses; for this, qualitative studies are required. A number of authors

have argued that as childless women in developing countries bear a major burden (due to their childlessness) in comparison with those in developed countries, investment in modern infertility treatment options in developing countries can easily be justified (Sen, 1994; Edouard and Olatunbosun, 1997; Daar and Merali, 2002; Akande, 2008; Ombelet, 2009; Nahar and Richters, 2011).

Moreover, the high prevalence of all the potential causal factors present in Bangladesh has been mentioned in the introduction. This high number of potential causal factors for infertility in Bangladesh also justifies the provision of infertility services in the country.

Finally, infertility services are also justified from an equity perspective. Evans et al. (2001) mentioned poverty, marginalisation, urban/rural differences, differences in social status, education, gender, social context and social policy as key factors to understanding inequity. Braveman (2003) emphasised the issue of fairness and justice in his discussion of inequity. Referring to these arguments, it is unfair to make ARTs available only to the wealthier sector of the population whilst the suffering of childlessness is just as intense in the poorer population; in some cases the intensity of consequences are even more among the deprived groups (Nahar and Richters, 2011). It is the poor who are more vulnerable to potential risk factors of infertility. In such a context infertility service in Bangladesh is definitely an example of unfairness.

Conclusion

Through the analysis of stakeholders' interviews on infertility policies and services via a vertical process, we can clearly see that everyone is busy placing the

blame on someone else for not taking care of the issue of infertility, whilst infertile/childless women/people are deprived of biomedical infertility treatment. It is almost as if they don't exist; or are invisible. The government and policy makers in Bangladesh do not want to admit that this is a problem; they are keen to promote a reduction in the child birth rate and to improve maternal and child health care, while remaining silent about infertility.

Recommendation

I argue that the obstacle of providing infertility service in Bangladesh is not at the provider or public health programme implementers level as the health service provision is guided by the decisions of the policy makers, which again are steered by the views of the donor agencies. It is therefore important to change the conceptualization of prioritising public health problems by the donors and government policy makers, which principally is guided only by epidemiological data. Strong advocacy is needed to promote the point that epidemiological data do not capture the impact of this burden on the wellbeing of infertile people. It is also important to highlight the significant prevalence of infertility risk factors in Bangladesh. More research is needed on infertility both from epidemiological and social science perspectives in Bangladesh. By increasing the body of knowledge on infertility through greater numbers of research and through rigorous advocacy for alleviating the sufferings of infertile persons, it is possible to change the views of government policy makers and donors, which will ultimately make evident the need for better care for infertility.

However, taking the reality of resource constraints into account, it is still possible to provide infertility service at a low level using the existing set-up. For example pathological tests for diagnosis of infertility and assessment of causal factors, primary treatment for gynaecological problems, media campaigns (particularly against stigma) and counselling for infertility can be provided within the present infrastructure. In addition, low cost infertility treatment could also be introduced for infertile couples.

References

Ali TS, Neelofar S, Ali KK. Are Unhygienic Practices During the Menstrual, Partum and Postpartum Periods Risk Factors for Secondary Infertility? *J Health Popul Nutr.* 2007;25(2): 189-94.

- Ahmed, SM, Chowdhury AMR. Health scenario. In: Ahmed M. (ed.) *Bangladesh Towards 21st Century.* Dhaka: Community Development Library. 1999:55-78.
- Ahmed S, Khanum PA, Islam A. Maternal morbidity in rural Bangladesh: Where do Women go for care? (ICDDR,B Working Paper no.147). Dhaka: ICDDR,B press, 1998.
- Akhter F. *Depopulating Bangladesh: Essays on the Politics of Fertility.* Dhaka: Narigrantha Prabantana Press, 1992.
- Akande EO. Affordable assisted reproductive technologies in developing countries pros and cons. *Hum Reprod.* 2008; ESHRE Monographs:12-4.
- Braveman PA. Monitoring equity in health and health care: A conceptual framework. *J Health Popul Nutr.* 2003;21(3):181-92.
- Country Report. Bangladesh Population Statistics. 2006. www.unicef.org/infobycountry/bangladesh_Bangladesh_statistics.html
- Country Report. Population program and reproductive health including family planning program in Bangladesh. 2000. www.unescap.org/pop/sappe/papers/bangladesh_country_report.doc
- Daar AS, Merali Z. Infertility and social suffering: the case of ART in developing countries. In Vayena E, Rowe PJ, Griffin PD (eds.) *Current Practices and Controversies in Assisted Reproduction.* World Health Organization. Geneva, Switzerland, 2002, 15-21.
- Edouard L, Olatunbosun OA. The case against new reproductive technologies in developing countries. *Br J Obstet Gynaecol.* 1997;104:969.
- Evans T, Whitehead M, Diderichsen F et al. *Challenging Inequities in Health.* Oxford: Oxford University Press, 2001.
- Farely TMM, Baisey EM. The prevalence of an etiology of infertility. *Proceedings, The 1st African Population Conference.* 28 November 1998; Senegal, Dakar, 1998.
- Fuchs GJ. Low birth weight: a tabulation of available information. *Maternal Health and Safe Motherhood Programme. Global forum for health research: Centre for health and population research Dhaka, Bangladesh and World Health Organisation.* 1992.
- Gibney L, Saquib N, Macaluso M et al. STD in Bangladesh's trucking industry: Prevalence and risk factors. *Sex Transm Infect.* 2002;78:31-6.
- Graham W. *Skilled attendance at delivery In Bangladesh: An Ethnographic Study.* University of Aberdeen. Dugald Baird Centre for Research on Women's Health. Aberdeen, UK, 2001.
- Haque A. Tuberculosis in Bangladesh. 2002. www.whoban.org/tb/ntp/NTPnote3.html
- Jejeebhoy S. Infertility in India – levels, patterns and consequences: Priorities for social science research. *J Fam Welf.* 1998;44(2):15-24.
- Kumar D. Prevalence of female infertility and its socioeconomic factors in Tribal communities of Central India. *Rural Remote Health.* 2007;7:456.
- Kumar NP, Shah A, Singhal DS et al. Association of tuberculous endometritis with infertility and other gynecological complaints of women in India. *J Clin Microbiol.* 2008;46(12): 4068-70.
- Nahar P. Link between infertility and poverty: evidence from Bangladesh. *Hum Fertil.* 2012; 15(1):18-26.
- Nahar P, Richters A. Suffering of childless women in Bangladesh: The intersection of social identities of gender and class. *Anthropol Med.* 2011; 18 (3): 327-38.
- Nahar P. Health Seeking Behavior of Childless Women In Bangladesh: An Ethnographic Exploration. *Soc Sci Med.* 2010a;71(10):1780-7.
- Nahar P. Violence against childless women. In: Bolaiah Donta et al. (eds.) *Gender based violence and sexual and reproductive health.* National Institute for research in reproductive health, World Health Organisation, and Indian Society for the Reproduction and Fertility, ISBN 978-81-910540-1-9, Mumbai, 400012, India. 2010b:11-30.

- Nahar P. Mystery of empty laps: Life of childless women in Bangladesh. *FV&V in ObGyn*. 2010c; Monograph:28-34.
- Nahar P. Childlessness in Bangladesh: Suffering and resilience among rural and urban women. 2007. University of Amsterdam, The Netherlands.
- Ombelet W. Reproductive healthcare systems should include accessible infertility diagnosis and treatment: an important challenge for resource-poor countries. *Int J Gynaecol Obstet*. 2009;106:168-71.
- Prasad JH, Abraham S, Kathleen M et al. Reproductive tract infections among young married women in Tamil Nadu, India. *Int Fam Plan Perspect*. 2005;31:73-82.
- Rahman M. Fertility Transition, Contraceptive Use, and Abortion in Rural Bangladesh: The case of Matlab. 2000. www.apha.confex.com/apha/128am/techprogram/paper_8117.html
- Rashid SF. Kal distri, stolen babies and 'blocked uterus': poverty and infertility anxieties among married adolescent women living in a slum in Dhaka, Bangladesh. *Anthropol Med*. 2007;14(2):153-66.
- Rowland R. The advancement of reproductive health in the Asia/Pacific region: Redefining the basis. Proceedings of the conference, 'The Third Asia and Pacific Conference Science and Medicine', February, 1996, Faculty of Health and Human Science, Edith Cowan University. Perth: Western Australia, 1996.
- Sen A. Freedoms and needs. *The New Republic*. 1994;10:31-2.
- Singh P, Singh S, Singh R et al. Treatment of infertility: The Indian Experience. *The Internet Journal of Third World Medicine*. 2007;5:1.
- SDNP. Sustainable development network program (Report). Dhaka: SDNP. 2002.
- UNFPA Bangladesh. Reproductive health in Bangladesh: A sectarian review. Dhaka: UNFPA. 1996.
- Unnithan-Kumar M. Emotion, Agency and Access to Healthcare: Women's Experiences of Reproduction in Jaipur. In: S. Tremayne (ed.) *Managing Reproductive life. Cross-cultural themes in fertility and sexuality*. Oxford: Berghahn books, 2001:27-51.
- Unisa S. Infertility and treatment seeking in India: findings from district level household survey. *FV&V in ObGyn*. 2010; Monograph:59-65.
- Vaessen M. Childlessness and infecundity. *WFS Comparative Studies. Series 31*. Voorburg, The Netherlands: Cross National Summaries. 1984.
- WHSEA. Women's Health in South-East Asia. WHO regional Office for South-East Asia. 2002a. www.whosea.org/woen/ch3.htm
- WHSEA. Women for women Bangladesh. Am I pregnant? Women's Health in South East Asia. 2002b. www.am-I-pregnant.com/aip.article/0/178626