



# EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES

<http://www.ejbps.com>

**ISSN 2349-8870**  
**Volume: 10**  
**Issue: 1**  
**90-96**  
**Year: 2023**

## SOCIAL STATUS ON CONCEPTION, CONCEPTION COMPLICATIONS AND USES OF CONTRACEPTIVES: A SURVEY IN KHULNA, JASHORE AND DHAKA DISTRICTS IN BANGLADESH

**Fatema Akter Sonia<sup>1</sup>, Md. Shafiqul Islam<sup>1</sup>, Most. Reshma Akter<sup>2</sup>, Md. Shimul Bhuiya<sup>1</sup>, Md Razowanul Ferdous<sup>3</sup>, Nusrat Jahan Tohfa<sup>1</sup> and Muhammad Torequl Islam<sup>1\*</sup>**

<sup>1</sup>Department of Pharmacy, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj 8100, Bangladesh.

<sup>2</sup>Department of Pharmacy, Pabna University of Science and Technology, Pabna 6600, Bangladesh.

<sup>3</sup>Department of Pharmacy, Manarat International University, Dhaka, Bangladesh.

**\*Corresponding Author: Muhammad Torequl Islam**

Department of Pharmacy, Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Gopalganj 8100, Bangladesh.

Article Received on 16/11/2022

Article Revised on 06/12/2022

Article Accepted on 26/12/2022

### ABSTRACT

**Background:** The act of conceiving a child is referred to as conception, and the purposeful use of artificial methods or other approaches to avoid pregnancy is referred to as contraception. **Aim:** This study aims to determine women's knowledge of conception, reasons for conception complications, and knowledge as well as attitudes about different contraception methods among 300 women. **Methods:** A total of 300 women are included in this study, and they are from different socioeconomic classes in Khulna, Jashore, and Dhaka districts in Bangladesh. Information was acquired through direct interviews conducted by utilizing a prefixed questionnaire between July 2021 and January 2022. **Results:** The results indicate that 27.70% of women experienced a miscarriage, and 27.30% is the frightening statistic for women who had a late pregnancy. The satisfactory news is that 96% of women think contraception knowledge is necessary, and 45.7% of women are using contraception methods. Among them, 22.7, 12.3, 5.7 and 3% were found using pills, condoms, injections, and caps, respectively. But the concern is that only 53% of women use these methods regularly, and about 13.7% of them have experienced health problems after using contraception, such as 4.3% experiencing missed periods, 15.3% gaining weight, and 18% facing dizziness and vomiting. It also suggests that around 32.3% of women have not used any type of contraceptive method. **Conclusion:** Inadequate education, specifically a lack of knowledge about conception and contraception, is a significant factor that is linked to all of the issues in this topic, such as unconsidered contraceptive choices. By spreading women's education, these issues can be eliminated.

**KEYWORDS:** Conception; contraception methods; health problems; Bangladeshi women; educational status.

### INTRODUCTION

Conception is the onset of pregnancy, and the process of human conception begins with ovulation.<sup>[1]</sup> Only 4% of all South Asians live in Bangladesh, which has the highest rate of infertility among all South Asian nations, at about 15%.<sup>[1-3]</sup> During pregnancy, some women have health issues. It could be a problem with the mother's health, the embryo, or even both. Infertility may also be brought on by old age, health issues (such as PCOS), endometriosis, and pelvic inflammatory disease. Even healthy women may face complications during pregnancy.<sup>[4]</sup> Infertility is also a result of severe medical disorders such as sexually transmitted diseases (STDs), respiratory tract infections (RTIs), urinary tract infections (UTIs), unhygienic deliveries, and postpartum infections.<sup>[5,6]</sup> Although the incidence of STDs in

Bangladesh is still unknown, the country had a high rate in 1989 and 1997, and we now know that there are roughly 2.3 million STD victims in Bangladesh.<sup>[7]</sup> In Bangladesh, only 5% of births are attended by a medical professional, and the country's abortion rate is rising daily. These factors can also lead to pelvic infections.<sup>[7,8]</sup> Furthermore, the additional indirect causes of infertility or difficulties during conception, such as tuberculosis, anemia, malnutrition, and light birth weight, are also important to note here, even infertility may also be caused by contraceptive usage.<sup>[9]</sup>

The practice of contraception is a birth control method.<sup>[10]</sup> Contraception is the intentional avoidance of pregnancy through the use of artificial tactics while engaging in sexual activity, such as the use of various

medicines, devices, and surgical procedures. By using these methods, the consequences appear as though sperm may not reach the ovum. It has been estimated that unsafe abortions and pregnancy-related problems account for half of all mortality among women of reproductive age, and poor family planning is the main source of pregnancy complication issues.<sup>[11-13]</sup>

Additionally, it is clear that contraceptives are necessary for both men and women to prevent unwanted pregnancies, control family size, enhance the spacing between childbirths, and reduce abortion.<sup>[14]</sup> Bangladesh (62%) has a greater prevalence of contraceptive use than other South Asian nations like Pakistan (35%), Afghanistan (23%), Nepal (50%), and India (58%) which is fairly similar to the global prevalence (64%). However, since 1975, the prevalence of contraception among married women in Bangladesh has significantly increased (from 8% in 1975 to 62% in 2014). According to the Bangladesh Demographic Health Survey (BDHS) 2014, contraceptive use increased by 6%, from 56% in 2007 to 62% in 2014, but only slightly over the previous three years (from 61% in 2011 to 62% in 2014).<sup>[15-19]</sup> The prevalence was relatively low in Sylhet and Chittagong (47.8% and 55.0%, respectively), while it was highest in the divisions of Rangpur and Rajshahi (69.8% and 69.4%, respectively). More specifically, contraception was used by non-Muslim women more frequently than by Muslim women (69.4% vs. 61.7%).<sup>[20]</sup>

## METHODOLOGY

### Study Design

To get a variety of data for this survey program, we chose three Bangladeshi districts: Khulna (Sheikhpara

and Shonadanga regions), Jashore (Rupdia, Bosundia, and Nowapara regions), and Dhaka (Savar and Dhamrai regions). From July 2021 to January 2022, 300 married women took part in an in-person interview utilizing a prewritten questionnaire. We prepared those questions in such a straightforward manner and asked them in such a friendly manner that they did not feel embarrassed or shy to express themselves.

### Inclusion Criteria

Women had to be married and have at least one attempt to conceive. A face-to-face interview method was conducted among the selected women.

### Exclusion Criteria

Unmarried respondents and irrelevant information were not included in this study.

### Statistical Analysis

The entire analysis of the study was done using SPSS (Statistical Package for Social Sciences) for Windows version 24.0. Microsoft Excel (2013) was used to calculate the body mass index and Microsoft Word (2013) for preparing all the outputs that were presented in the study.

## RESULTS

In this survey, we have seen that the largest category of women is housewives, constituting 80.7%, and the second greatest percentage of professionals is 17%, service holders among all the participants. Also having a little percentage of laborers and other occupational. (Table 1).

**Table 1: Frequency distribution of respondents' occupation.**

Occupation	Frequency	Percent	Valid (%)	Cumulative (%)
House Wife	242	80.7	80.7	80.7
Laborer	2	.7	.7	81.3
Service Holder	51	17	17.0	98.3
Other	5	1.7	1.7	100.0
Total	300	100	100.0	

17.3% of women were graduates; 10.7% studied up to a higher secondary level; 33% at the secondary level; 0.3% at the junior high level; and 34.3% at the primary level

educated. It is worth mentioning that 4.3% of married women are still illiterate in this advanced era. (Table 2).

**Table 2: Frequency distribution of respondents' education.**

Education	Frequency	Percent	Valid (%)	Cumulative (%)
Graduate	52	17.30	17.30	17.30
Higher Secondary	32	10.70	10.70	28.00
Secondary	99	33.00	33.00	61.00
Junior High	01	0.30	0.30	61.30
Primary	103	34.30	34.30	95.70
Illiterate	13	4.30	4.30	100.00
Total	300	100.00	100.00	

During pregnancy, 8% of women had uterine disorders, 3.3% had kidney problems, 7.7% had asthma problems,

and 16% experienced overweight complications (Table 3).

**Table 3: Frequency of respondents' physical disorder during pregnancy.**

Physical disorder	Frequency	Percent	Valid (%)	Cumulative (%)
NO disorder	259	86.30	86.30	86.30
Uterus	24	8.00	8.00	94.30
Kidneys	10	3.30	3.30	97.70
Urethra	5	1.70	1.70	99.30
Urinary tract infection	2	0.70	0.70	100.00

We have found that about 27.7% of women first experienced a miscarriage at the age of 18–24, constituting 14.3%, 6% at the age of 25–30 among the 300 respondents (Table 4).

**Table 4: Frequency of respondents' age during 1<sup>st</sup> miscarriage.**

Age During 1 <sup>st</sup> Miscarriage	Frequency	Percent	Valid (%)	Cumulative (%)
<18	22	7.3	26.5	26.5
18-24	43	14.3	51.8	78.3
25-30	18	6.0	21.7	100.0
Total	83	27.7	100.0	-
No miscarriage	217	72.3	-	-
Total	300	100.0		

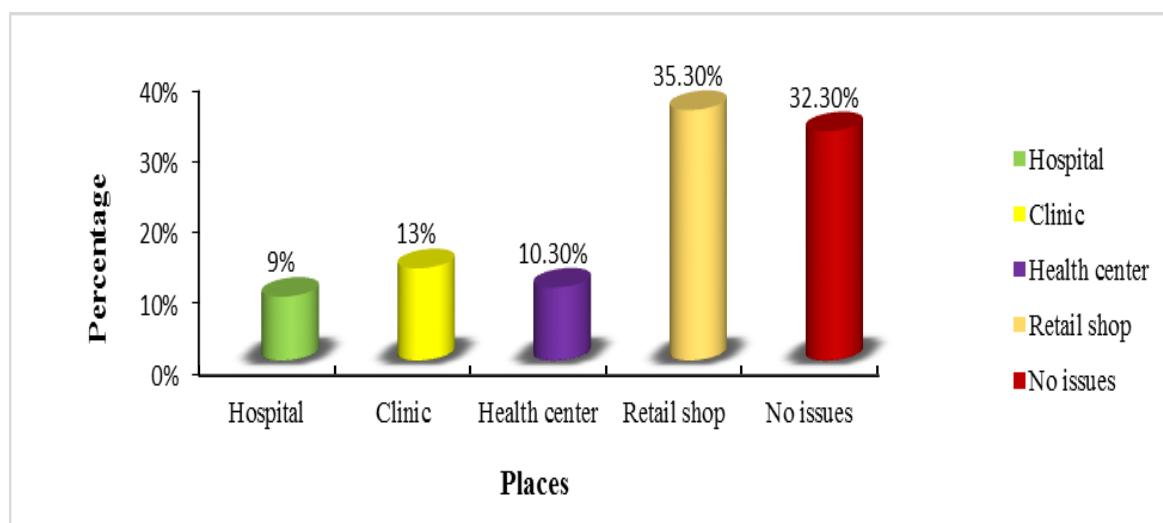
27.3% of women have experienced delayed pregnancy (Table 5), whereas the 26–35 age group had a comparatively higher percentage.

**Table 5: Frequency of late pregnancy.**

Late Pregnancy	Frequency	Percent	Valid (%)	Cumulative (%)
yes	82	27.3	27.3	27.3
No	218	72.7	72.7	100.0
Total	300	100.0	100.0	

For choosing the contraception method and having conception knowledge, 9% of women chose the hospital service, 13% went to the clinic, 10.3% found a way to

the health shop, and 35.3% continued with the help of retail shop (Figure 1).

**Figure 1: Diagram of place from where sexual health service is taken.**

It is a matter of fact that only 45.7% of the women in this study habitat to using contraceptives including- 22.7% using pills, 3% using caps, and 5.7% benefitted from contraceptive injections, whereas 4% still believe that contraception knowledge is not important. (Table 6).

**Table 6: Frequency distribution of type of current contraception method usage.**

Type of Current Contraception Method Usage	Frequency	Percent	Valid Percent	Cumulative Percent
No issues	163	54.3	54.3	54.3
Condom	37	12.3	12.3	66.7
Pills	68	22.7	22.7	89.3
Cap	9	3.0	3.0	92.3
Contraceptive injection	17	5.7	5.7	98.0
Morning after pill	3	1.0	1.0	99.0
Vasectomy	3	1.0	1.0	100.0
Total	300	100.0	100.0	

Among the contraceptive users, around 42% have faced some health issues, including- 4.3% of women faced missed periods; 1% experienced heavy periods; 15.3% gained weight; 1.3% experienced breast tenderness

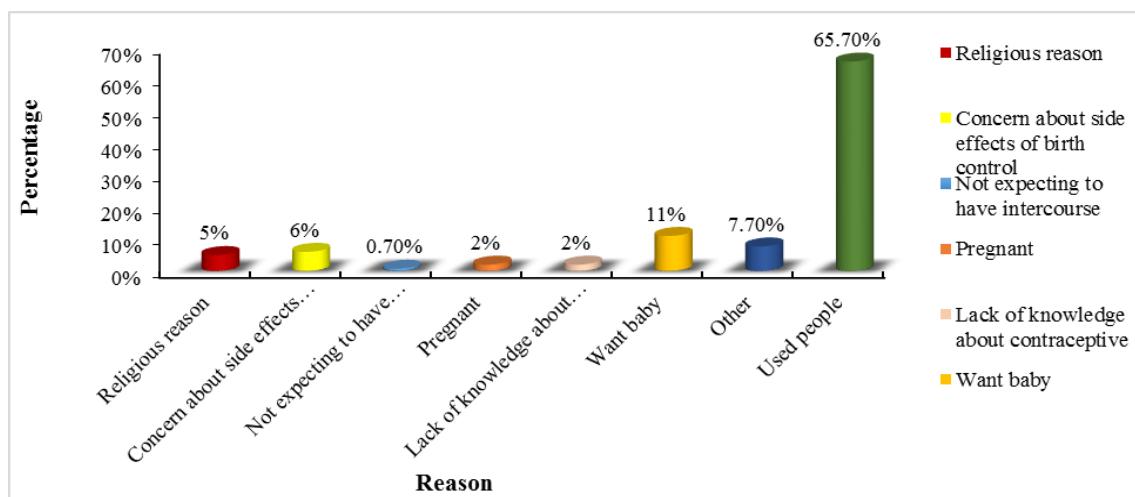
problems; 0.7% had vaginal discharge; 1% underwent headaches, and 18% found themselves in dizziness and vomiting (Table 7).

**Table 7: Frequency distribution of problems due to using contraceptives.**

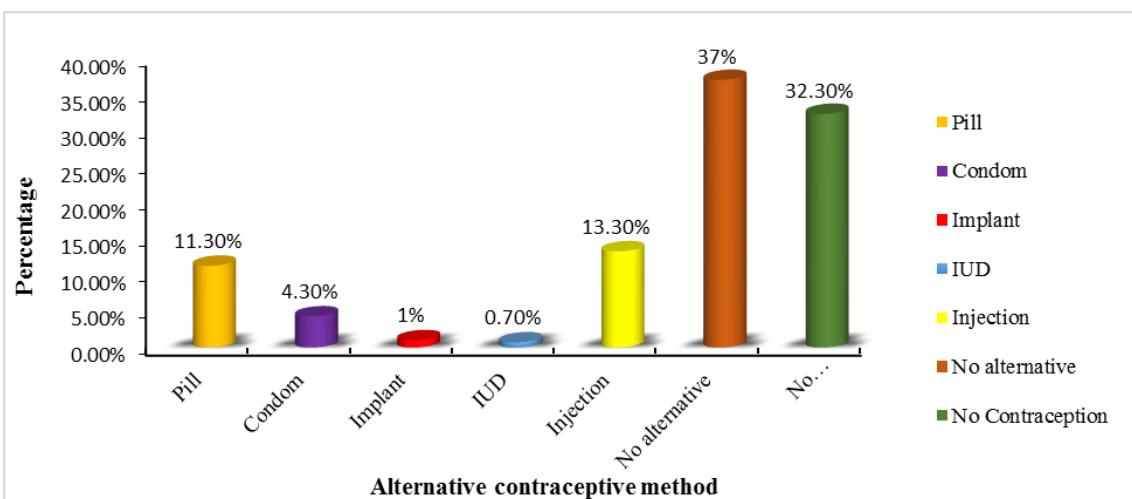
Contraceptive-mediated Complications	Frequency	Percent	Valid (%)	Cumulative (%)
Dizziness and Vomit	54	18.0	18.0	18.0
Didn't use any contraceptives	97	32.3	32.3	50.3
Conception Complication	2	.7	.7	51.0
Missed periods	13	4.3	4.3	55.3
Vaginal discharge	2	.7	.7	56.0
Heavy periods	3	1.0	1.0	57.0
Weight gain	46	15.3	15.3	72.3
Breast tenderness	4	1.3	1.3	73.7
Headaches	3	1.0	1.0	74.7
Shows no problem	76	25.3	25.3	100.0
Total	300	100.0	100.0	

The main reasons given by women who have not been using contraceptives are: religious contention (5%), concerns about the side effects (6%), not expecting to

have intercourse (0.7%), being pregnant (2%), lack of knowledge about contraception (2%), wanting a baby (11%), and some other reasons (7.7%) (Figure 2).

**Figure 2: Diagram the reasons not using any form of contraceptive method.**

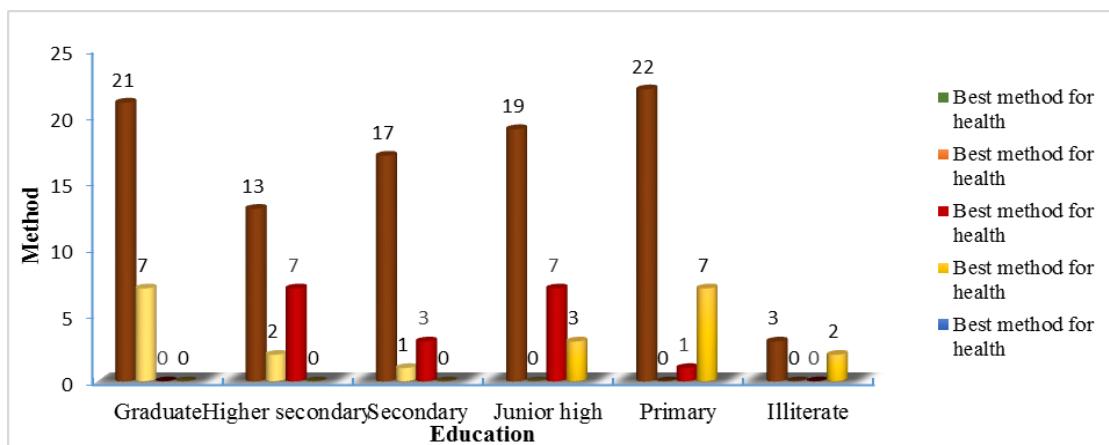
The highest percentage of women (13.30%) chose injection as their alternative birth control technique. 11.30% of women chose pills as their alternative contraception technique. Small percentages of women also chose Condoms, implants, and IUDs (Figure 3).



**Figure 3: Column diagram of adopting the alternative method.**

From the cross-tabulation between education and knowledge about the best contraceptive method, graduated and higher-secondary women think condoms

are the best contraceptive method, whereas, for women with a secondary or junior high education, pills are the most common and effective method for them (Figure 4)



**Figure 4: Column diagram of education vs. the best method of contraception.**

## DISCUSSION

Bangladesh is a developing nation, and we are in a phase of rapid progress in many facets of life, but the health sector is where we are falling behind, and as a result of our lack of attention to our physical well-being, we are aging physiologically. Birth control is an extremely important aspect of married life. People choose various techniques and modes of perception. Many women are facing conception complications caused by age, social and mental status, health problems, abortion, unfavorable lifestyle choices, and occasionally using contraception.<sup>[25]</sup> Obese women are more prone to experience difficulties during childbirth.<sup>[27]</sup> Our study also reveals that women are facing conception difficulties beyond having abortions (10%), 14% of women had various physical disorders specifically asthma problems (7.7%), and 16% of women having overweight complications turned to late pregnancy.

Higher knowledge of contraceptives drives couples toward the appropriate use of contraceptives. They are aware of the contraceptives that work best for them and

have the fewest adverse effects. In addition, women who are knowledgeable about contraceptives do not worry about their side effects.<sup>[21]</sup> Our findings also reveal that graduated women are highly knowledgeable and even more conscious about STDs than less educated women. Educated women are familiar with modern methods of contraception that create a significant impact on family planning. The connection between women's education and the usage of contraceptives is facilitated by the acceptance of family planning and awareness of the contraceptive method.<sup>[22]</sup> Compared to uneducated women, educated women are more concerned about their health and frequently visit medical centers.<sup>[23]</sup> Contraception is more likely to be used by older women who have already had their desired number of children.<sup>[24]</sup>

Another factor is the barriers to using contraceptives comprise a variety of factors, including lack of access to contraceptive techniques, pregnancy, preference for male children, and poor couple communication.<sup>[28]</sup> Our study also finds out such reasons behind not using

contraceptives. These are religious contention, concerns about the side effects, not expecting to have intercourse, being pregnant, lack of knowledge about contraception, wanting a baby, and some others.

The outcomes of using contraceptives might also have an emotional or behavioral impact. One of the first research teams to examine the pill and its potential negative effects included 46,000 women who were monitored for 25 years by Dr. C.R. Kay and the Royal College of General Practitioners. A 30% relative increase in depression, a fourfold drop in libido, and an increase in divorce were among the significant findings of the study's first major report, which was published six years into the project.<sup>[29-31]</sup> Our study also measured some common side effects among the contraceptive users (42% have faced some health issues), including missed periods; heavy periods; obesity; breast tenderness; vaginal discharge; headaches, dizziness, vomiting, etc.

## CONCLUSION

Our desire was to find out the main causes of conception complications and analyze knowledge about different contraceptive methods among 300 married women in various regions (suburbs) of Bangladesh, regarding this study. Here, we find that because of some health issues before their marriage and abortion during married life, women have faced conception complications such as subsequent miscarriages. Most of them have been getting their sexual health services from retail shops. This is the main reason they are having tremendous health problems after using contraceptives. Every contraception method is not fit for every woman. Before using a contraception method, proper consultation with the doctor is important. No illiterate woman knows about it. So, education is crucial for gaining contraception knowledge. An uneducated woman cannot even take care of herself properly, let alone her child's health. So, we strongly felt the need for women's education, especially in rural areas, because without an educated mother, a nation cannot be civilized. Bangladesh's government should be more focused on women's education. It particularly needs to establish more government clinics in the suburban areas so that illiterate women can also get sufficient knowledge about sexual health, and we could get a healthy nation.

## ABBREVIATIONS

PCOS (polycystic ovary syndrome), STDs (Sexually transmitted diseases), UTIs (Urinary tract infections), and RTIs (Reproductive tract infections).

## ACKNOWLEDGMENT

We owe thanks to the Department of Pharmacy at the Bangabandhu Sheikh Mujibur Rahman Science and Technology University for supporting this study.

## CONFLICT OF INTEREST

None declared.

## REFERENCES

- Lockwood GM, Muttukrishna S, Ledger WL. Inhibins and activins in human ovulation, conception and pregnancy. *Human reproduction update*, 1998; 4(3): 284-95.
- Rahman M, DaVanzo J, Razzaque A. Do better family planning services reduce abortion in Bangladesh?. *The Lancet*, 2001; 358(9287): 1051-6.
- Dristi K. stolen babies and blocked uteruses: Poverty and infertility anxieties among married adolescent women living in a sum in Dhaka, Bangladesh. *Anthropology & Medicine*, 2007; 14(2): 153-66.
- Singh P, Singh S, Singh R, Raghuvanski R. Treatment of infertility: The Indian Experience. *The Internet Journal of Third World Medicine*, 2007; 5(1).
- Serour GI, Aboulghar M, Mansour R, Sattar MA, Amin Y, Aboulghar H. Complications of medically assisted conception in 3,500 cycles. *Fertility and sterility*, 1998; 70(4): 638-42.
- Prasad JH, Abraham S, Kurz KM, George V, Lalitha MK, John R, Jayapaul MN, Shetty N, Joseph A. Reproductive tract infections among young married women in Tamil Nadu, India. *International family planning perspectives*, 2005; 73-82.
- Unisa S. Infertility and treatment seeking in India: findings from district level household survey. *Social Aspects of Accessible Infertility Care in Developing Countries*, 2010; 59: 65.
- Nahar P. Invisible women in Bangladesh: stakeholders' views on infertility services. *Facts, views & vision in ObGyn*, 2012; 4(3): 149.
- Acevedo CH, Ahmed A. Hemeoxygenase-1 inhibits human myometrial contractility via carbon monoxide and is upregulated by progesterone during pregnancy. *The Journal of clinical investigation*, 1998; 101(5): 949-55.
- Nahar P. Invisible women in Bangladesh: stakeholders' views on infertility services. *Facts, views & vision in ObGyn*, 2012; 4(3): 149.
- Hossain MB, Khan MH, Ababneh F, Shaw JE. Identifying factors influencing contraceptive use in Bangladesh: evidence from BDHS 2014 data. *BMC public health*, 2018; 18(1): 1-4.
- Tsui AO, Wasserheit JN, Haaga JG. Reproductive health in developing countries: expanding dimensions, building solutions.
- Lucas AO, Stoll BJ, Bale JR, editors. *Improving birth outcomes: meeting the challenge in the developing world*.
- Burns AA, Lovich R, Maxwell J, Shapiro K. *Where women have no doctor: a health guide for women*. Hesperian Foundation, 2006.
- Te Velde ER, Pearson PL. The variability of female reproductive ageing. *Human reproduction update*, 2002; 8(2): 141-54.
- Karim F, Khan AN, Tasnim F, Chowdhury MA, Billah SM, Karim T, Arifeen SE, Garnett SP. Prevalence and determinants of initiation of breastfeeding within one hour of birth: An analysis

- of the Bangladesh Demographic and Health Survey, 2014. PloS one, 2019; 14(7): e0220224.
17. Chaurasia AR. Contraceptive use in India: a data mining approach. International Journal of Population Research, 2014; 2014.
18. Mahmood A, Sultan M. National Institute of Population Studies (NIPS) (Pakistan), and Macro International Inc. Pakistan Demographic and Health Survey, 2006; 7: 123-45.
19. MoHP N, ERA N, Inc MI. Nepal demographic and health survey. Kathmandu: Ministry of Health and Population, 2007.
20. Aalemi AK, Shahpar K, Mubarak MY. Factors influencing vaccination coverage among children age 12–23 months in Afghanistan: analysis of the Demographic and Health Survey. PloS one, 2020; 15(8): e0236955.
21. Glinski A, Sexton M, Petroni S. Understanding the Adolescent Family Planning Evidence Base (Review of Literature).
22. Islam AZ, Mondal MN, Khatun ML, Rahman MM, Islam MR, Mostofa MG, Hoque MN. Prevalence and determinants of contraceptive use among employed and unemployed women in Bangladesh. International Journal of MCH and AIDS, 2016; 5(2): 92.
23. Jejeebhoy, S. J. Women's education, autonomy, and reproductive behaviour: Experience from developing countries. OUP Catalogue, 1995.
24. Islam S, Hasan M. Women knowledge, attitude, approval of family planning and contraceptive use in Bangladesh. Asia Pacific Journal of Multidisciplinary Research, 2016; 4(2): 76-82.
25. Mitra SN, Kamal GM. Bangladesh Contraceptive Prevalence Survey, 1985. Dhaka: Mitra and Associates; 1987.
26. Islam S, Hasan M. Women knowledge, attitude, approval of family planning and contraceptive use in Bangladesh. Asia Pacific Journal of Multidisciplinary Research, 2016; 4(2): 76-82.
27. Bhattacharya S, Campbell DM, Liston WA, Bhattacharya S. Effect of body mass index on pregnancy outcomes in nulliparous women delivering singleton babies. BMC public Health, 2007; 7(1): 1-8.
28. Sedgh G, Hussain R, Bankole A, Singh S. Women with an unmet need for contraception in developing countries and their reasons for not using a method. Occasional report, 2007; 37: 5-40.
29. Robinson SA, Dowell M, Pedulla D, McCauley L. Do the emotional side-effects of hormonal contraceptives come from pharmacologic or psychological mechanisms?. Medical Hypotheses, 2004; 63(2): 268-73.
30. O'Connell K, Davis AR, Kerns J. Oral contraceptives: side effects and depression in adolescent girls. Contraception, 2007; 75(4): 299-304.
31. Kay C. Oral contraceptives and health. British Medical Journal, 1974; 3(5926): 342.