

# Prevalence of Contraceptive Use among Married Women of Reproductive Age Group in a Rural Area of Bangladesh: A Cross-Sectional Study

Rajat Das Gupta (Corresponding author)

Intern Doctor, Dhaka Medical College Hospital, 1/5, Road No: 1, Shyamoli, Dhaka-1207, Bangladesh.  
E-mail: rajat89.dasgupta@gmail.com

Debashis Datta

Intern Doctor, Dhaka Medical College Hospital, 19/4 Surma R/A, Sagardhighirpar, Sylhet – 3100, Bangladesh.  
E-mail: opotto@gmail.com

Saikat Roy

Intern Doctor, Dhaka Medical College Hospital

Sriporna Das

Intern Doctor, Sher-E-Bangla Medical College Hospital

Shah Muhammad Yasir Aziz

Third Year Student, Armed Forces Medical College

## Abstract

**Introduction:** Population explosion is one of the important issues in all around the world and more specifically in a developing country like Bangladesh. Contraceptives are devices, techniques and methods used to prevent fertilization thereby population explosion. The present study is an attempt to assess the prevalence of contraceptive use among married women of reproductive age in a selected rural area in Bangladesh. **Objectives:** To assess the prevalence of contraceptive use among married women of reproductive age group (15-49 years) in a rural area of Bangladesh. **Materials and Methods:** This descriptive type of cross sectional study was conducted from February 2012 to June 2012 in Mulaid village of Gazipur district, Bangladesh. Purposive sampling technique was followed. Data were collected in a structured questionnaire through face to face interview. Study population was all married women of reproductive age group. Sample size was 420. **Results:** Among 420 respondents, 62.3% were using contraceptive methods at the time of study and rest, 37.7% were not using due to some reasons, such as pregnancy, breast feeding etc. A mostly used contraceptive method among current users (69%) was oral contraceptive pill. **Conclusion:** This study revealed the awareness about contraceptive used among the married women. More health education on reproductive health through school health clinic, family planning services and mass media can improve the health and family planning situation of our country. Government should provide more fund for research purposes in order to raise the awareness and control population explosion.

**Keywords:** Contraceptive Methods, Reproduction, Bangladesh.

## 1. Introduction

Population explosion is one of the important issues in all around the world and more specifically in a developing country like Bangladesh. Bangladesh is facing different problems related to population explosion. These are shortage of food, problem of accommodation, pollution, inadequate health care supply, reduction of fertility, reproductive health and reproductive rights of women etc. Family planning program is the key to solve this problem.<sup>1</sup>

Family planning and adoption of birth control measures reduce unintended pregnancies and unsafe abortions, averts maternal and new born deaths and leads to a decline in the number of women facing complications due to unsafe pregnancies.<sup>2</sup>

National Family Planning Program in the world was first formulated in India in 1952. The objective of this program was to reduce birth rate.<sup>3</sup> Higher parity in local South Asian populations was reported by UK Family Planning Program. It has also been reported that Asian women use contraceptive at a very low rate. Inadequate health education and difficulty in access of family planning services are the chief reasons behind this.<sup>4</sup>

According to Bangladesh Demographic and Health Survey, 2007 (BDHS-2007), current fertility rate of Bangladesh (TFR per thousand live births) is 2.7. This is still not good enough because only about 55% of total women of reproductive age group are taking any form of contraceptive method.<sup>1</sup>

Contraceptives are devices, techniques and methods used to prevent fertilization.<sup>5</sup>

Lack of contraceptive use results in unwanted pregnancies and this ultimately led to an increasing number of childbirth.<sup>1</sup>

By understanding the levels and determinants of contraceptive use we can formulate policies that support proper strategies for raising contraceptive prevalence.<sup>1</sup>

Our research focuses on the prevalence of contraceptive use which is a part of the evaluation of the family planning program. The objective of this study is to assess the prevalence of contraceptive use among married women of reproductive age group (15-49 years) in a rural area of Bangladesh.

## 2. Materials and methods

### 2.1 Study site

This cross-sectional study was conducted in Mulaid village of Sreepur upazilla under Gazipur district of Bangladesh. The study was conducted during the period from February 2012 to June 2012.

### 2.2 study population

The study population all married women of reproductive age group (15-49 years) of Mulaid village. Married women of reproductive age group, permanent residents of Mulaid village, co-operative were included. Married or unmarried women below 15 years and above 49 years of age, unmarried women of reproductive age, non-cooperative were excluded.

### 2.3 Sampling technique

The prevalence of contraceptive use among the married women of reproductive age group in Bangladesh was 55.8% according to BDHS 2007 (Bangladesh Demographic and Health Survey, 2007). Considering the margin of error 10% and the confidence interval to be 95%, the estimated sample size would be 379. Epi Info version 3.5.3 was used to calculate the sample size for our study. Considering the feasibility and a non-response rate of 10%, we decided to take a sample size of 420. Then the respondents were selected by Systematic random sampling.

### 2.4 Data collection and analysis

Data was collected through face-to-face interviews of the respondents with the help of a pretested semi structured interview schedule. There were two parts; questions related to socio demographic characteristics and questions related to feeding practices. Written informed consent was taken from the respondents. Data was entered into Microsoft Office Excel® software in codes and analysis was done by SPSS software version 14.0®. Descriptive statistical analysis, which included frequency, mean and percentages, was used to characterize the data.

Approval for this study was obtained from Dhaka Medical College Ethics Committee. The authors followed the recommendations of the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement in writing this article.<sup>7</sup>

## 3. Result:

### 3.1 Socio-Demographic Characteristics of the Respondents:

Among 420 respondents, the highest 114 (27.17%) respondents were found between the age group of 20-24 years and the least 21 (4.91%) were found between the age group of 45-49 years. The mean age of the respondents was 28.12 year with a S.D. of  $\pm 7.881$  ranging from 15-49 years. Majority of the respondents (71.43%) received institutional education. Majority 355 (84.5%) were housewives; followed by 43 respondents (10.2%) were service holders. 358 (85.3%) respondents have at least one child in their family. Among those who had children in their families, majority 224 (62.63%) respondents had one or two children followed by 109 (30.53%) of them had three or four children. Majority 235 (55.87%) respondents were found between the age group of 16-20 years when they were married (Table 1).

### 3.2 Contraceptive related Characteristics of the Respondents:

249 (62.3%) respondents were using contraceptives at the time of the study (Table 2). Most of the current users 172 (69%) were using oral contraceptive pill (Figure 1). Among those who were not using contraceptives, majority (44.37%) were eager to take child. Majority of the contraceptive users (57.7%) did not experience any side effects. Among those who experienced side effects, majority 47 (44.76%) experienced weight gain followed by 27 (25.71%) who experienced irregular menstruation. Majority 120 (56.34%) respondents were using contraceptive methods for less than 3 years (Table 2).

#### 4. Discussion

This descriptive cross sectional study was aimed at finding out the prevalence of contraceptive use among 420 married women of reproductive age group (15-49 years) of the village Mulaid under Telihati union in Sreepur upazilla of Gazipur district in Bangladesh.

The prevalence of contraceptive use among the married women of reproductive age group in Bangladesh was 55.8% according to BDHS 2007 (Bangladesh Demographic and Health Survey, 2007). Two other studies done by Hossain, T et. al. (2008)<sup>1</sup> and Kalam, EMN et. al. (2002)<sup>7</sup> the prevalence rate in rural Bangladesh were found as 92.6% and 70% respectively. Our study showed the prevalence rate 62.3% which was less than the previous studies and higher than the rate given by BDHS 2007. It may be due to higher educational level of the respondents, which was maximum as 71.43% respondents received institutional education. This finding was supported by Hossain, T et. al. (2008)<sup>1</sup>, Kalam, EMN et. al. (2002)<sup>7</sup>, Saxena, S et. al. (2002)<sup>3</sup>, Murarkar, SK et. al. (2011)<sup>8</sup> and also Kansal et. al. (2006)<sup>9</sup> in their studies where they found 77.9%, 64.15%, 48.8%, 82.76%, 56.93% women were educated up to secondary level respectively.

In our study, among 420 respondents the highest, 27.17% respondents were found between the age group of 20-24 years and the least 4.91% were found between the age group of 45-49 years. More or less similar pictures were found in studies done by Kalam, EMN et. al. (2002)<sup>7</sup>, Hossain, T et. al. (2008)<sup>1</sup>, Mahmood, SE et. al. (2011)<sup>10</sup>, Saxena, S et. al. (2002)<sup>3</sup>, Bagheri, M et.al. (2010)<sup>11</sup>. Some of the studies, 9 & 12 showed a different age group of contraceptive acceptors. Murarkar, SK et. al. (2011)<sup>8</sup> observed that maximum contraceptive acceptance (i.e. 65%) was in 35-39 and 40-44 years age group followed by 30-34 and 25-29 years of age group i.e. 60% and 48.58% respectively. Again, Ollugbenga-Bello AI et. Al. (2011)<sup>12</sup> in their study found that 35 and above years were the majority group in contraceptive use which was 29.2%. The women aged more than 30 years had completed their families and did not want more children.

In our study 85.3% families had children. Among those who have children, majority 62.63% one or two children. Only 2 (0.55%) respondent had more than nine children. The trend of small family size was preferred by a large group of people. Most of the women noted that family planning protected mothers, children and future of family. All most similar findings were showed by Khokar, A and Mehra, M (2005)<sup>13</sup> where 63.1% women had borne one child and 10.2% had two children. Hossain, T et. al. (2008)<sup>1</sup> and Kansal, A et. al. (2006)<sup>9</sup> depicted more or less similar pictures in their studies.

It seemed that age at marriage played an important role in acceptance of contraceptive methods. Percentage of acceptance of contraceptive methods increased steadily with increasing age at marriage. This was seen by Murarkar, SK et. al. (2011)<sup>8</sup> where they showed maximum being in the age group of 21-25 years i.e. 109 (65.67%) out of 126. But in our study, majority were found between the age group of 12-20 years when they were married. Same age group was found by Hossain, T et. al. (2008)<sup>1</sup> in their study, where 78.5% of women were using contraceptives who were married off at less than 20 years and 64.4% women married off at 20 years or more age. So, in our study age at first marriage did not have much influence on current use of contraceptives.

Out of 420 married women, 62.3% were using any form of contraceptive methods at the time of study. Our study revealed the awareness about contraceptive used among the married women, while in other studies<sup>3,9,14</sup> the non-acceptors were more than that the acceptors. During our study the commonest reason for not acceptance was desire for children by 44.37% women, followed by fear of side effects by 31.79% women. These findings were similar to those studies done by Hossain, T et. al. (2008)<sup>1</sup> and by Murarkar, S et. al. (2011)<sup>14</sup> in their study in rural India. A gap between knowledge, attitude and practices regarding contraception was noted by Narayan, R (2008)<sup>15</sup> in his study.

Among the current users majority 172 (69%) were taking oral contraceptive pill, which was followed by 27 (10.9%) condom users. Here no respondent was using norplant. Injection and female sterilization had the same percentage each of which was 15 (7.3%). This reflects that the oral contraceptive pill and condoms were easy to administer and they were easily available. These findings were almost same with studies done by Hossain, T et. al. (2008)<sup>1</sup>, Saxena, S et. al. (2002)<sup>3</sup>, Bagheri, M et.al. (2010)<sup>11</sup>. In some other studies done by Kansal et. al. (2006)<sup>9</sup>, Narayan, R (2008)<sup>15</sup> and Murarkar, S et. al. (2011)<sup>14</sup> the most commonly accepted method for contraception was the permanent method. There was predominance of female sterilization in rural areas, as men don't come forward for vasectomy. The rate of tubectomy was 28.88%, condom was 11.68%, oral contraceptive pill user rate was 4.78% according to Kansal et. al. (2006)<sup>9</sup>. Murarkar, S et. al. (2011)<sup>14</sup> found that tubectomy rate was 64.26% and vasectomy rate was 0.40%, whereas oral contraceptive pill user rate was 5.14%. Narayan, R (2008)<sup>15</sup> observed that, among different methods, female sterilization (75%) was the most commonly used method in India. Among 215 respondents, majority 120 (56.34%) respondents were using contraceptives for less than 3 years. Contraceptives user more than 12 years were only 1 (0.46%). It might be due to the lower age group (20-24 years) respondents whose married life was short and to some extent due to sterilization, where the family was completed.

In our study, majority respondents experienced no side effect from any kind of contraceptive methods. Highest 44.76% complained of weight gain with the pill and injection. Headache (5.71%), irregular

menstruation (25.71%), lower abdominal pain (8.57%), weight loss (12.38%) etc were other side effects. Study done by Ollugbenga-Bello AI et. al. (2011)<sup>12</sup> also showed that, majority of the women about 89.5% did not have side effects from any of the contraceptive methods. More women should be encouraged if they got proper health education about reproductive health and family planning services.

The current use rate was much higher among Muslim women than non-Muslim women in the study area. 89% were Muslim and 11% were Hindus among 420 respondents of our study. This finding was similar to Saxena, S et. al. (2002)<sup>3</sup> where Muslims were practicing contraceptive methods more (48.8%) than Hindus (41.9%) and other religions. A different picture was found in Naogaon district of Bangladesh which was done by Hossain, T et. al. (2008)<sup>1</sup> and another study done by Kalam, EMN et. al. (2002)<sup>7</sup> where non-Muslim women were higher contraceptive users i.e. 76.5% and 66.09% respectively.

In our study out of 420 respondents, majority were housewives, followed by service holders (10.2%). This finding was somewhat different from findings of Kalam, EMN et. al. (2002)<sup>7</sup> who observed that women who engaged in financial activities were using contraceptive more (66.12%) rather than women who were not using (59.2%). Bagheri, M et. al. (2010)<sup>11</sup> also showed that, in Iran 33.2% of women were unemployed and 66.8% were employed.

In our male dominant society, husbands' opinion had a great influence on use of contraceptives. In our study majority 81.9% couples planned together to adopt contraceptive methods. Similar findings were seen by Hossain, T et. al. (2008)<sup>1</sup> in Naogaon district of Bangladesh and Kalam, EMN et. al. (2002)<sup>7</sup> where they found that majority women i.e. 69.2% and 70.14% respectively were discussed with their husbands about contraceptives.

The women must participate in decision making about family planning and also a husband's consent was required before his wife could accept a contraceptive method. The current study done in rural area in Bangladesh gave us a positive finding where contraceptive prevalence rate is little higher (62.3%) than national CPR of Bangladesh (55.8%). Yet then, further studies in a much wider field are needed.

The study has several limitations. First of all recall bias may exist. Data were collected from a part of selected rural community and may not reflect the whole scenario of contraceptive use in rural communities of Bangladesh, hence generalization of results might not be possible.

Improvement of the status of women in the family and society in general, and enhancement of contraceptive supply through visits by field workers to the individual level in particular will certainly improve the current picture of family planning program in Bangladesh.

## 5. Conclusion

The present study reveals the prevalence of contraceptive use among the married women of reproductive age group from 15 to 49 years in a rural area in Bangladesh. The study has conducted under such circumstances when world is overburdened with rapid population growth ; specially in developing countries like Bangladesh. Through contraceptive prevalence among ever married women of reproductive age is increasing rapidly, the rate has not yet reached up to the mark.

In our study the prevalence of contraceptive use is 62.3%. Within this study we also get knowledge about their socio-demographic characteristics. Most of the female (32.45%) using contraceptive are in age group 21-25 years. It assumes that women use contraceptive in their peak fertile period. Regarding education, maximum females received institutional education. Due to education women exposed to the outside world, it prompts them to look for contraception. The decision taking process becomes easier for female respondent.

Among all the contraceptive methods, OCP users are the highest among current users. As most of the respondents experienced no side effects, this percentage is encouraging.

So, we see that the use of contraceptive increases due to increased awareness and status of female.

Still, there is a need to intensify information, education and communication activities and motivate the population to practice contraception.

## References

1. Hossain T, Abedin S, Islam MR; Prevalence of contraceptive use in Naogaon District of Bangladesh; Middle East Journal of Family Medicine, August 2008, Vol 6, Issue 6. Pg. 7-10.
2. Park K; Park's Textbook of Preventive and Social Medicine, February 2009, 20th Edition. Pg-411.
3. Saxena S, Oakeshott P, Hilton S; Contraceptive use among South Asian Women attending general practices in southwest London; British Journal of General Practice, May 2002, Pg. 392-400.
4. Bangladesh Health and Population. World Bank; Available from: <http://worldbank.org/bd>.
5. Wikipedia, the free encyclopedia; Available from: <http://en.wikipedia.org/wiki/contraceptive>.
6. Von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP, et al. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting

- observational studies. Lancet. 2007; 370(9596):1453-7.
7. Kalam EMN and Khan HTA; Modeling contraceptive prevalence in Bangladesh: A hierarchical approach; Asian Meta Centre Research Paper Series no.5, May,2002; pp 1-20.
  8. Murarkar SK, Soundala SG; Epidemiological Correlates of contraceptive prevalence in married women of reproductive age group in rural area; National Journal of Community Medicine 2011, Vol. 2, Issue : 1, Pg. 78-88.
  9. Kansal A, Chandra r, Kandpal SD, Negi KS; Epidemiological Correlates of Contraceptive Prevalence in Rural Population of Dehradun District; Indian Journal of Community Medicine; Vol 30, no 2(2005-04-2005-06); pp 1-7.
  10. Mahmood SE, Srivastava A, Shortriya VP, Shaifali I, Mishra P; Postpartum Contraceptive Use in Rural Bareilly; Indian Journals of Community Health; July-December 2011; Vol. 23; Page:1.
  11. Bagheri M, Nikbakhsh B ; Prevalence of Contraceptive Usage and Family Planning, European Journal of Scientific Research; Vol 44, no.3(2010); pp457-465.
  12. Olugbenga-Bello AI, Abodunrin OL, Adeomi AA; Contraceptive Practises Among Women in Rural Communities in South Western Nigeria; Global Journal Of Medical Research; vol 11, issue 2, version 1, July 2011.
  13. Khokar A and Mehra M; Contraceptive Use in Women from a Resettlement Area in Delhi; Indian Journal of Community medicine; Vol 30, No1(2005-03-2005-03); pp.14-15.
  14. Murarkar SK, Soundale SG and Lakade RN; Study of contraceptive practices and reasons for not accepting contraceptives in rural India: Chennai village as a case study; Indian Journal of Science and Technology; Vol.4 No.8(Aug2011) pp 915-916.
  15. Narayan R; Contraceptive Use Among Slum and Non Slum dwellers: An Analysis of Selected cities in India; Research Scholar, International Institute for Population Sciences, E-mail: rajiips2008@gmail.com.

**Table 1. Socio-Demographic Characteristics of the Respondents**

Categories	Frequency	Percentage (%)
<b>Age (in years) (n=420)</b>		
15-19	44	10.57
20-24	114	27.17
25-29	103	24.53
30-34	46	10.94
35-39	57	13.58
40-44	35	8.3
45-49	21	4.91
<b>Religion (n=420)</b>		
Islam	374	89
Hindu	46	11
<b>Literacy Status (n=420)</b>		
Illiterate	57	13.57
Non-institutional Education	63	15
Institutional Education	300	71.43
<b>Occupations (n=420)</b>		
Housewife	355	84.5
Service Holder	43	10.2
Businesswomen	6	1.5
Agricultural Workers	8	1.9
Day Labourers	2	1.4
Student	6	0.5
<b>Respondents' Family having Children (n=420)</b>		
Yes	358	85.3
No	62	14.7
<b>Number of Children in a family (n=358)</b>		
1-2	224	62.63
3-4	109	30.53
5-6	21	5.75
7-8	2	0.55
≥9	2	0.55
<b>Age of marriage (in years) (n=420)</b>		
≤15	141	33.58
16-20	235	55.87
21-25	29	6.79
26-30	15	3.76

**Table 2. Contraceptive related Characteristics of the Respondents.**

Categories	Frequency	Percentage (%)
<b>Current contraceptive method users (n=420)</b>		
Yes	249	62.3
No	151	37.7
<b>Reasons for Not Taking Contraceptives (n=151)</b>		
Eager to take child	67	44.37
Fear of side effects	48	31.79
Husband forbidden	13	8.61
Male baby preference	8	5.30
Dissatisfaction	10	6.62
Religious binding	5	3.31
<b>Side Effects Experienced by the Users (n=249)</b>		
Yes	105	42.3
No	144	57.7
<b>Type of Side Effects Experienced by the Users (n=105)</b>		
Weight Gain	47	44.76
Weight Loss	13	12.38
Irregular Menstruation	27	25.71
Lower Abdominal Pain	9	8.57
Headache	6	5.71
Nausea	3	2.87
<b>Plan to adopt contraceptive methods (n=249)</b>		
Husband	37	8.7
Wife (Self)	38	9.4
Both	345	81.9
<b>Period of using contraceptive methods (in years) (n=249)</b>		
≤3	140	56.34
4-6	54	21.60
7-9	28	11.27
10-12	18	7.04
13-15	8	3.29
≥16	1	0.46

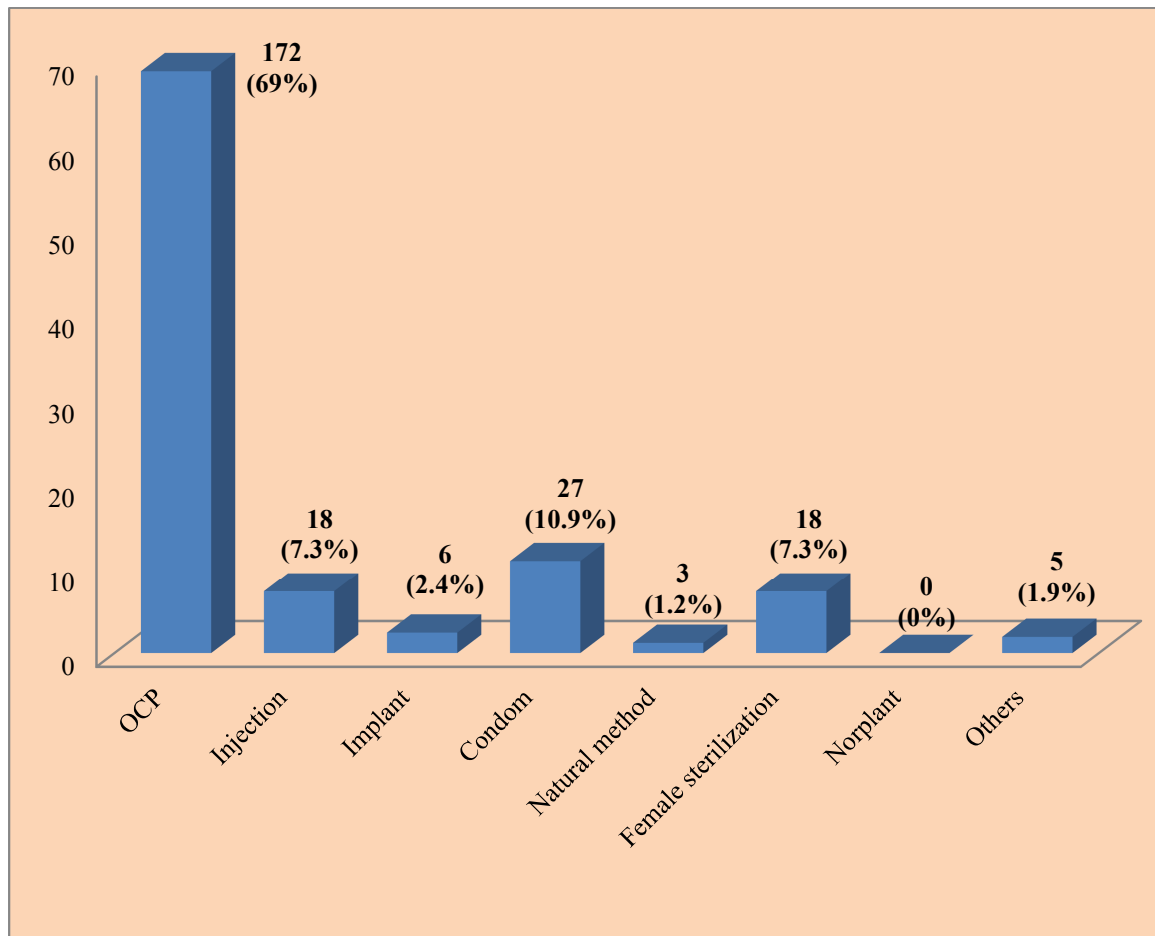


Figure 1. Contraceptives used by current users

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

## CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

**Prospective authors of journals can find the submission instruction on the following page:** <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

## MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

## IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

