ABSTRACT: INTRODUCTION: Unwanted pregnancy places a women at additional risk, if she seeks abortion and safe services are not available. Poverty, ignorance and non-availability of trained personnel are important causes of septic abortion in India. OBJECTIVE: To study the knowledge and practices of septic abortion in women. MATERIALS AND METHODS: A Longitudinal study was conducted in the indoor of obstetrics and gynaecology department of M.G.M. Medical College & L.S.K Hospital, Kishanganj, Bihar from the period of Feb-2014 to April-2014. A total of 100 cases of septic abortion were selected by simple randomization. Informations of these cases about their knowledge and practices of septic abortion was obtained by conducting interview and studied. OBSERVATIONS: Out of the 100 cases studied, majority (i.e 60%) were having no knowledge of contraceptive devices. Rural women were having lesser knowledge of contraception than urban women. Majority of the cases got the knowledge of contraception through media, like television (20%), radio (25%), stage drama (15%), nautankee (12.5%). Urban population of women had a greater knowledge of MTP Act than rural population. In majority of the cases (i.e 65%), there was a history of dai intervention. Among 100 cases studied, in 51 cases (i.e 51%), instrumentation was used for procuring the septic abortion. CONCLUSION: Present study shows that poor knowledge of contraception and MTP Act particularly in rural women and conduction of abortion by untrained personnel like dais, quacks, local practitioners are important contributing factors for high incidence of septic abortion in India. So, there is the need to strengthen good quality abortion services.

KEYWORDS: Knowledge, Practice, Septic abortion, Contraception.
incidence of septic abortion. These cases are mostly referred to hospitals very late after occurrence of complications leading to high maternal morbidity and mortality. Viewed in this context, the present study was undertaken to evaluate the knowledge and practices of women under study regarding septic abortion.

OBJECTIVE: To study the knowledge and practices of women regarding septic abortion.

MATERIALS AND METHODS: This was a longitudinal study, conducted in the indoor of obstetrics and gynaecology department of M.G.M. Medical College and L.S.K. Hospital, Kishanganj, in collaboration with the department of community medicine, from the period of February-2014 to April-2014 (Three months). A total of 100 cases of septic abortion were selected for the study by simple randomization. All women having features of septic abortion and registered in the indoor for treatment were considered as study subjects. Diagnosis of septic abortion was done on the basis of per abdomin and per vaginal examinations, investigations and per operative findings. Verbal consent was obtained from each women and confidentiality of the cases were maintained. All the personal informations of the cases were collected by conducting a personal interview of each women using a pre-designed questionnaire.

OBSERVATION: The knowledge and practices of women about contraception and septic abortion were studied in this present study.

| Knowledge about Contraception | No. of cases | Percentage |
|-------------------------------|--------------|------------|
| No Knowledge                  | 60           | 60%        |
| Barrier method                | 06           | 6%         |
| IUCD                          | 05           | 5%         |
| Pills                         | 25           | 25%        |
| Foam/Jelly                    | 0            | 0%         |
| Tubectomy                     | 09           | 9%         |

Table 1- Knowledge about contraception (n=100)

Out of the 100 cases studied, majority of the cases (i.e 60%) had no knowledge of contraceptive devices. Out of the remaining, 6% cases knew the barrier method, 5% knew about IUCD, 25% about pills, and 9% about tubectomy.

| Place   | Total number of cases | Knowledge of Contraception | Percent | No Knowledge of Contraception | Percentage |
|---------|-----------------------|----------------------------|---------|--------------------------------|------------|
| Rural   | 78                    | 22                         | 23.18   | 56                             | 76.81      |
| Urban   | 22                    | 18                         | 81.8    | 4                              | 18.18      |

Comparison between the Rural Vs Urban P<0.001 and Z=4.5

Table 2- Knowledge of contraception (Rural, Urban) (n=100)
Out of the 100 cases studied, rural women comprised of 78 cases in which maximum number of cases (76.81%) had no knowledge about contraception, while 23.18% had some knowledge. Urban women comprised of 22 cases in which 81.8% had knowledge about contraception and 18.18% had no knowledge. The knowledge of contraception between the rural and urban was significantly different. This means that urban populations had greater knowledge of contraception as compared to rural.

| Source of Knowledge     | No. of cases | Percentage of cases |
|-------------------------|--------------|---------------------|
| ANM                     | 06           | 15                  |
| Primary health centre   | 05           | 12.5                |

**Table 3- source of Knowledge of Contraception (n=40)**

Out of the 100 cases questioned, only 40 cases could respond regarding their source of knowledge regarding contraception. Majority of the cases got the knowledge of contraception through media, like television (20%), radio (25%), stage drama (15%), nautankee (12.5%). 15% of the cases got the knowledge from ANM and 12.5% got the knowledge from primary health centre.

| Place     | Total no. of cases | Knowledge of MTP Act |
|-----------|--------------------|----------------------|
|           |                    | Yes | Percentage | No  | Percentage |
| Rural     | 78                 | 08  | 10.2       | 70  | 89.7       |
| Urban     | 22                 | 20  | 90.9       | 02  | 09         |

**Table 4- Knowledge of MTP Act (Liberalization of abortion) (n=100)**

Out of the 100 cases studied, the majority of women had no knowledge of MTP Act. Among 78 rural women 89.7% had no knowledge about MTP Act and only 10.2% had knowledge. Out of 22 urban women 90.9% had knowledge about MTP Act, while 9% had no knowledge. The knowledge of MTP Act between rural and urban population is significantly different. So, urban population had a greater knowledge of MTP Act than rural population.
Table 5- Showing the type of person conducting septic abortion (n=100)

| Conducting persons                | No. of cases | Percentage of cases |
|-----------------------------------|--------------|---------------------|
| Dais                              | 65           | 65%                 |
| Sister/Paramedical staff          | 30           | 30%                 |
| General Practitioners (MBBS)      | 05           | 05%                 |

**Comparison between dais Vs sisters P<0.001**
**Comparison between dais Vs general practitioners P<0.001**

Out of 100 cases studied, the following distribution was seen in the incidence of persons conducting septic abortion:

In 65 cases (i.e. 65%), there was a history of dai intervention and this number was significantly high. In 30 cases (i.e. 30%), there was a history of sisters/paramedical staff intervention and in 5 cases (i.e. 5%), general practitioners (MBBS) intervention was there.

Table 6- Showing the devices used for procuring the septic abortion (n=100)

| Group                           | No. of cases | Percentage of cases |
|---------------------------------|--------------|---------------------|
| Instrumentation                 | 51           | 51%                 |
| Laminaria tent                  | 23           | 23%                 |
| Abortion stick                  | 12           | 12%                 |
| Laminaria tent with instrumentation | 03     | 03%                 |
| Thin rod                        | 03           | 03%                 |
| Cycle spoke                     | 02           | 02%                 |
| Suction                         | 02           | 02%                 |
| Broom stick                     | 01           | 01%                 |
| Abortion stick with medicine    | 01           | 01%                 |
| Potassium Permanganate          | 01           | 01%                 |
| Not clear                       | 01           | 01%                 |

n=Number of Cases

Out of the 100 cases studied, in 51 cases (51%), instrumentation was used, in 23 cases (23%) laminaria tent was used, in 12 cases (12%) abortion stick was used, in 3 cases (3%) laminaria tent with instrumentation was used, in 3 cases (3%) thin rod was used, in 2 cases (2%) cycle spoke was used, in 2 cases (2%) suction was used, in 1 case (1%), broomstick was used, in 1 case (1%), abortion stick with medication was used, in 1 case (1%) potassium permanganate was used and in 1 case (1%), device used was not clear.
DISCUSSION: MTP is a safe and easy procedure for trained hands, but becomes life threatening when performed by untrained persons in unsterile conditions. In our study, the termination of pregnancy was conducted by dais in 65% cases, followed by paramedical staffs (30%) and general practitioners (MBBS) (5%) [Table-5]. Sharma et al⁹ had similar observations, in which 67.7% of cases were induced by dais and other untrained persons at home or other unhygienic places. Various other authors have made similar observations.(10-12)

Our study shows that instrumentation is the commonest method of interference constituting 51%, followed by laminaria tent (23%) and stick insertion (12%). other methods used were rod & spoke insertion, suction & evacuation, medicinal use, etc. [Table-6]. Sood et al¹³ reported that termination method included instrumentation by untrained midwives (62%), foreign body insertion (7.5%) and dilatation and curettage or suction by unqualified personnel.

CONCLUSION: Our present study confirms that septic abortion is one of the important neglected health problems, particularly in rural areas of India. This is mainly due to lack of education, adequately trained abortion provider and freely available quality abortion services, which leads to very high maternal mortality and morbidity. Thus, there is a serious unmet need for easy availability of safe and effective methods of contraception and abortion services.

RECOMMENDATIONS: A high degree of commitment from all categories of health professionals for prevention of unsafe abortion is needed. General doctors also need to be properly trained to provide quality abortion services. Early diagnosis of complication and prompt referral to tertiary centres also will save many lives and limit morbidities. Women's health groups and other advocates, parliamentarians and health professionals can work together to support the right of women not to die from unsafe abortions and to ensure that they receive treatment for complications. Although law, policy and women's right are central to this issue, making abortions safe is above all, a public health responsibility of governments.

REFERENCES:
1. Phillip G Stubble field, David A Grimes. Septic abortion. New England J Med. 1994; 331(5): 310-314.
2. Jeffcoate’s Principles of Gynaecology, 7th ed. New Delhi, India: Jaypee Brothers Medical Publishers (p) Ltd; 2008; 131-138.
3. Ahman E, Seth I. Unsafe abortion. In: Battler P. Global and regional estimates of the incidence of unsafe abortion and associated mortality. WHO, Geneva. 2004:1.
4. Ministry of Health & Family Planning, Government of India, Medical Termination of Pregnancy Act, 1971, 34 of 1971, 31-6 (iii) Amended 1972, New Delhi.
5. Akande OE. Reducing morbidity and mortality from unsafe abortion in Nigeria. Archives of Ibadan Med 2001; 2: 11-13.
6. Ekanem AD, Etuk SJ, Udoma EJ, Ekanem IA, Bassey IE. What proportion of abortion seekers in calabar are really pregnant? Trop. J. Obstet.Gynaecol. 2006; 23: 12-15.
7. Konye JC, Obisesan KA. Septic abortion at University College Hospital, Ibadan, Nigeria. Int. J. Gynaecol.Obstet.1991; 36: 121-125.
8. Maternal mortality http://www.icm.tn.goc.in/intersession/maternal.htm
9. Sharma M, Malhotra P, Jain P et al. Role of early active management in patients of septic abortion. J. Obstet & Gynaecol. Today. 2008; 13: 459-61.
10. Jain V, Saha SC, Bagga R, Gopalan S. Unsafe abortion: A neglected tragedy. Review from a tertiary care hospital in India. J. Obstet. Gynaecol. India. 2004; 30(3): 197-201.
11. Padubidri V, Kotwani BG. Septic Abortions- 5 Years review. J. Obstet & Gynaecol. India. 1978; 11: 593-97.
12. Naib JM, Siddiqui ML, Afridi B. A review of septic induced abortion cases in one year at Khyber Teaching Hospital, Peshawar. J Ayub Med Coll Abbottabad. 2004; 16(3): 59-62.
13. Sood M, Juneja Y, goyal U. Maternal mortality and morbidity associated with clandestine abortions. Journal of Indian Medical Association. 1995; 93(2): 77.

**AUTHORS:**
1. Kashif Shahnawaz
2. Pankaj Kumar
3. Suryadev Singh

**PARTICULARS OF CONTRIBUTORS:**
1. Assistant Professor, Department of Community Medicine, MGMMC, Kishanganj, Bihar.
2. Assistant Professor, Department of Forensic Medicine, MGMMC, Kishanganj, Bihar.
3. Associate Professor, Department of Community Medicine, DMCH, Laheriasarai, Bihar.

**NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:**
Dr. Kashif Shahnawaz,
Manhar Road, Chhoti Quazipura,
Dist. – Darbhanga, Bihar, PIN-846004.
E-mail: kashif.shahnawaz98@gmail.com

Date of Submission: 01/06/2014.
Date of Peer Review: 02/06/2014.
Date of Acceptance: 07/06/2014.
Date of Publishing: 12/06/2014.