



## Socio-demographic Characteristics of Pelvic Inflammatory Diseases Patients attended at a Tertiary Care Hospital in Dhaka City

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### Abstract

**Background:** Pelvic Inflammatory disease is a very common gynaecological condition among the women. **Objectives:** The purpose of the present study was to see the socio-demographic characteristics of pelvic inflammatory diseases patients. **Methodology:** This cross-sectional study was carried out in the Department of Obstetrics and Gynaecology at Dhaka Medical College Hospital, Dhaka, Bangladesh from November 2001 to April 2002 during the period of six (06) months and December 2002 to February 2003 for three (03) months with the total duration of nine (09) months. Women at any age who were suffering from chronic pelvic inflammatory disease (PID) attended at the OPD of gynecology Department at Dhaka Medical College Hospital, Dhaka, Bangladesh were selected as study population. Detailed history of each patient was taken and thorough physical examination was performed. **Result:** A total number of 150 cases were recruited for this study. Among 150 case of chronic pelvic inflammatory disease (PID) majority of the patients (54%) belonged to the age group of 26 to 35 years of age group. Majority of the patients were married (90.7%). Among 150 cases 80.0% patients were house wife. Regarding husbands' occupation, 13.3% cases were businessman. Illiterate was in 44.7% cases. Among all patients 48.0% cases were found to be from lower socioeconomic status. Majority of the patients were from urban area (78.7% cases). **Conclusion:** In conclusion young reproductive age married illiterate women with low socio-economic condition are the mostly suffering from pelvic inflammatory diseases. [*Bangladesh Journal of Infectious Diseases, December 2018;5(2):41-44*]

**Keywords:** Pelvic Inflammatory disease; socio-demographic characteristics; PID

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## Introduction

Pelvic inflammatory disease (PID) refers to infection of the uterus, fallopian tubes, ovaries and adjacent pelvic structures not associated with surgery or pregnancy<sup>1</sup>. PID comprises a spectrum of inflammatory disorders of the upper female genital tract including any combination of endometritis, salpingitis, oophoritis and pelvic peritonitis. PID is associated with high morbidity<sup>2</sup>.

Long term sequelae of PID, specifically tubal factor infertility (TFI) and ectopic pregnancy are common and cause major problems to reproductive health in later life<sup>3</sup>. Repeated episodes of PID are associated with a sharp increase in the risk of permanent tubal damage<sup>4</sup>. It is apparent that PID poses a major threat to the reproductive health of young women and drains health care resources. It also represents an often neglected area of modern medical practice. However it should be emphasized that PID and its sequelae are largely preventable<sup>5</sup>.

Pelvic inflammatory disease is rare in women who are not sexually active. The overall incidence in UK is 10 to 13 per 1000 women of reproductive age with a peak of 20 per 1000 in the 15 to 24 years age group<sup>3</sup>. It is a poly microbial disease. A variety of organisms cause pelvic sepsis with superadded secondary infection and this is why the primary pathogen remains unidentified. Although gonorrhoea has long been considered the major cause of pelvic inflammatory disease, but recent studies have found a rising proportion of non-gonococcus pelvic inflammatory disease. By improved culture technique, workers have isolated *Chlamydia trachomatis*, anaerobic bacteria, enterobacteriae and *Mycoplasma hominis* as bacterial pathogens of pelvic infection, but the relative importance of these as primary or secondary pathogen is uncertain<sup>5</sup>.

Chronic pelvic inflammatory disease is never seen in prepubertal women and very rarely after the menopause; however, the most frequent age of involvement is between 15 and 25 years<sup>6</sup>. This peak age reflect the sexual activities of this group of women. This present study was undertaken to see the socio-demographic characteristics of pelvic inflammatory diseases patients.

## Methodology

This study was designed as descriptive cross-sectional study. It was carried out in the Department of Obstetrics and Gynaecology at Dhaka Medical College Hospital, Dhaka,

Bangladesh from November 2001 to April 2002 during the period of six (06) months and December 2002 to February 2003 for three (03) months with the total duration of nine (09) months. Women at any age who were suffering from chronic pelvic inflammatory disease (PID) attended at the OPD of gynecology Department at Dhaka Medical College Hospital, Dhaka, Bangladesh were selected as study population. Clinically the patients were diagnosed with the presence of at least three of the symptoms like chronic pelvic pain or backache, deep dyspareunia, congestive dysmenorrhea, menstrual irregularities as well as the signs like lower abdominal tenderness, cervical motion tenderness and adnexal tenderness with or without thickening of fornices or mass. Detailed history of each patient was taken and thorough physical examination was performed. Epidemiological aspects and clinical presentation have been mainly highlighted in this study. Socioeconomic classification was made roughly on the basis of monthly income of the patients or their legal guardians which were categorized into low socioeconomic condition less than taka 3000 per month, middle socioeconomic condition in between taka 3000 to 6000 per month and upper socioeconomic condition more than Tk. 6000 per month. Relevant data from each patient were recorded in a questionnaire. Data were analyzed by SPSS version 21.0 software package. All data were recorded systematically in a preformed data collection sheet. The quantitative data were expressed as frequency and percentage and the quantitative data were expressed as mean with standard deviation.

## Result

A total number of 150 cases were recruited for this study. Among 150 case of chronic pelvic inflammatory disease (PID) majority of the patients (54%) belonged to the age group of 26 to 35 years of age group followed by 16 to 25 years which was 33.3% cases (Table 1).

**Table 1: Age distribution among the Study Population (n= 150)**

Age Group	Frequency	Percentage
16 to 25 Years	50	33.3
26 to 35 Years	81	54.3
More Than 35 Years	19	12.4
<b>Total</b>	<b>150</b>	<b>100.0</b>

Out of 150 cases 90.7% patients were married; 3.3% cases were widow and 6.0% cases were separated (Table 2).

**Table 2: Marital status of the patients (n= 150)**

Marital status	Frequency	Percentage
Married	136	90.7
Widow	5	3.3
Separated	9	6
<b>Total</b>	<b>150</b>	<b>100.0</b>

Among 150 cases 80.0% patients were house wife and 20.0% cases were service holder (Table 3).

**Table 3: Distribution of Study Population according to Occupation (n= 150)**

Occupation	Frequency	Percentage
House wife	120	80.0
Service Holder	30	20.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

Regarding husbands' occupation, out of 150 cases, 13.3% cases were businessman; 5.3% cases were farmer; 23.3% cases were labour and 58.0% cases were service holder (Table 4).

**Table 4: Occupation of husband of the patients (n= 150)**

Occupation of Husband	Frequency	Percentage
Service holder	87	58.0
Labourer	35	23.3
Business man	20	13.3
Farmer	8	5.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

Among 150 cases 44.7% patients were illiterate; 34.0% cases were in primary school education and only 21.3% cases had secondary education and above (Table 5).

**Table 5: Educational status of the patients (n= 150)**

Education	Frequency	Percentage
Illiterate	67	44.7
Primary	51	34.0
Secondary and above	32	21.3
<b>Total</b>	<b>150</b>	<b>100.0</b>

Among all patients 48.0% cases were found to be from lower socioeconomic status.

**Table 6: Socioeconomic status of the patients (n= 150)**

Socioeconomic status	Frequency	Percentage
Low	72	48.0
Middle	63	42.0
Upper	15	10.0
<b>Total</b>	<b>150</b>	<b>100.0</b>

Only 10.0% cases were belonged to upper socioeconomic group and the rest 42.0% cases were from middle socioeconomic status (Table 6).

**Table 7: Living area of the patients (n= 150)**

Living area	Frequency	Percentage
Urban areas	118	78.7
Rural areas	32	21.3

Out of 150 case 78.7% cases came from urban area and 21.3% cases were from rural areas (Table 7).

## Discussion

The exact incidence of PID is unknown because the disease cannot be diagnosed reliably from clinical symptoms and signs<sup>7</sup>. Moreover women who have PID present to the general practitioners, gynaecologist and surgeons. Hospital discharge registries are poor surrogate markers for the true prevalence of PID<sup>8</sup>. However prevalence of PID is increasing all over the world. Five percent of gynaecological admissions in the hospitals of India and Pakistan are due to PID and in Africa it is 17 to 44 percent<sup>9</sup>. With this rising incidence of PID and its considerable impact on reproductive health of an individual, attention should be directed towards improved diagnosis and management.

A detailed and methodical study of 150 cases in this series shows highest (54.3%) incidence of this disease being in the age group of 26 to 35 years. Peterson also showed that women with PID are usually under the age of 25 years<sup>10</sup>. In another study it has been reported that 87 percent of the patients belong to the age group 20 to 35 years<sup>6</sup>. There is similarity between this last study which was conducted in India, with the present study. Laila also showed that 55.21% of her patients were in the age group of 26-35 years<sup>11</sup>. PID occurs more in younger age group in western countries where the disease is mainly STD related, but in developing countries, it is mostly non-STD related and occurs in later age group.

Younger age is marked by biological characteristics conducive to the development of PID, such as a lower prevalence of protective chlamydial antibody, larger zone of cervical ecotypy and greater permeability of cervical mucosa<sup>12</sup>. A correlation between early coital indulgence and promiscuous sexual relationship might explain the very high saplingitis incidence in sexually active teenage girls. However, STD is less important for development of PID in the somewhat older women. In this age group of patients and also in women who have had two or more episodes of PID, anaerobic bacteria is thought to be the

aetiological agent. The reason behind this may be the post PID fallopian tubes are more vulnerable to infections by anaerobes<sup>13</sup>. Anatomic changes induced by pregnancy and delivery contribute to an easier access to the vagina for bowel flora<sup>10</sup>. This may lead to an increased occurrence of a type of non-venereal PID in women of comparatively higher age.

Marital status is often referred to as risk marker for PID because active sexual life has an impact on the occurrence of PID. Recent history of pregnancy and abortion have been suggested to be associated with risk of PID. In the present study it has been shown that PID is most prevalent (90.7%) in the married group. Another study<sup>11</sup> showed that 92.19% patients were married. In Bangladesh, the sexual activity in widow and separated women are very unusual.

Regarding patient's occupation 80% patients were housewife and regarding their husbands' occupation majority (58.%) were service holder. In this study, majority (44.7%) of the women were illiterate, among rest 21.3% had education up to secondary level or above. It is the lack of education which makes the women ignorant about the fact that their sufferings and illness are preventable by safe childbirth and abortion practice. In this series 48 percent belonged to the low socioeconomic group and it is difficult to draw a conclusion from this study between the socioeconomic status and PID because if we compare the incidence in other socioeconomic group (middle and higher), there is no significant difference.

## Conclusion

In conclusion most of the pelvic inflammatory disease patients are in the age group of young adult reproductive age group. However, married women are mostly suffer. Furthermore, majority are

illiterate with low socio-economic condition. However, most of the patients are from urban area. Large scale study multi-centre study should be conducted for getting the real scenario.

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