

# A Study on Clinicodemographic Pattern of Infertility of Male Partner of Infertile Couple Attending For Infertility Treatment in Sylhet, Bangladesh

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### ABSTRACTS

**Background:** Male infertility is influenced by the environment, occupation, socioeconomic condition, and lifestyle.

**Objective:** The purpose of the present study was to see the demographic profiles and clinical characteristics of an infertile couple who attended at the OPD of a tertiary hospital in Sylhet city.

**Methodology:** This prospective longitudinal study was carried out in OPD of SOMCH, from June 2004 to December 2004. All data were taken in the performed questionnaire. Male partners of the 100 infertile couples attending the above-mentioned places at Sylhet. The study population was included with the criteria of the male partners of the infertile couples who had tried unsuccessfully for at least one year. The Exclusion criteria were men who had undergone a vasectomy. Proper history including occupational, sexual, personal, as well as medical, and surgical history, was recorded on a predesigned data collection sheet.

**Result:** In this study, the Majority (66%) of male partners of the infertile couples were between 30-40 years of age% and almost 98% of couples had primary infertility and the proportion between primary & secondary infertility is highly significant, among them 45% of couples reported within 3-5 yrs. of marriage and 80 % of couples had regular coitus (4-5 times /wk.). In this study, the majority of the male partners had the habits of. cigarette smoking 8% had the habit of alcohol intake, and most (42%) of the male partners were a businessman.

**Conclusion:** In conclusion, there is a significant number of young middle-aged males had primary infertility which related with life style.

**Keywords:** Infertility, Primary Infertility, Secondary Infertility.

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### INTRODUCTION

Infertility suggests factors that create absolute inability to conceive whereas subfertility describes factors due to relative inability to conceive. For the

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purpose of brevity, the guideline developers use the term "infertility" but assume that most fertility problems are relative in severity. This condition may be further classified as primary infertility, in which no previous pregnancy has occurred, and secondary, in which a prior pregnancy, although not necessarily a live birth, has occurred.

In a study done by Ladimi in 1987, primary infertility was found to be more frequent due to male involvement and secondary Infertility due to female involvement.<sup>1</sup> Infertility is a significant & common problem, affecting perhaps one couple in six<sup>2</sup>. The reported incidence of male infertility varies widely,

and the overall incidence is estimated to be 30-50% of sub fertile couples<sup>3</sup>. In a study done by WHO in 1989 over 1000 infertile couples from 33 centers in 25 countries, a possible cause in a male partner was found in a third of the cases, in a female partner in 25% of cases & in both partners in 25% cases. The In remaining cases, neither partner had a detectable cause of infertility<sup>4</sup>.

The male infertility is influenced by the environment, occupation, socioeconomic condition, stress, sexual behavior, smoking, and drinking habit, as well as consumption of illicit drugs Other important factors that seems to be occurring is the decline in male fertility, is environmental pollution, unfavorable working habit & job in middle-east in the hot environment seems to be likely cause. According to a study done by china. in Singapore in 2000, smoking, density of sperm and the viability of sperm were found. to be significant predictors for infertility among men<sup>5</sup>.

The duration of infertility also provides one of the most significant prognostic indicators of male infertility<sup>6, 7</sup>. It perhaps surprising that most studies published recently are in broad agreement on the prevalence of infertility with a figure of 14% of all couples. There is currently no reliable data available regarding the prevalence of infertility in Bangladesh.

Finally, people's expectations for infertility treatment are steadily rising because of media coverage of newer techniques like IVF with ICSI. So, there is a marked increase in infertility clinic attendance even in developing countries like Bangladesh.

## METHODS:

This prospective longitudinal study was carried out in OPD of SOMCH from June 2004 to December 2004. All data were collected in the performed questionnaire. Male partners of the 100 infertile couples attending the above-mentioned places at Sylhet. The study population was included with the criteria of the male partners of the infertile couples who had tried for at least one year. The Exclusion criteria were men who had undergone a vasectomy. Proper history including occupational, sexual, personal, as well as medical, and surgical history, was recorded on a predesigned data collection sheet. Data collected for each individual subject were compiled and analyzed using computer-based software, statistical package for social science (SPSS) for Windows. A, P value <0,05 was considered a minimum level of significance.

## RESULTS

This study was done to determine male infertility in infertile couples coming for treatment. It was a prospective longitudinal study where the factors associated with male infertility were sought out. The study population was the male partners of 100 infertile couples attending outdoor of Sylhet Osmani Medical College Hospital. The data was collected from the private chamber and gynae outdoor of SOMCH, during the period of July 2004 to December 2004.

The majority (66%) of male partners of the infertile couples were between 30-40 years of age, followed by >20 years (22%) When >40 years (12%). The distribution is not statistically significant. (Table I)

**Table-I:** Age distribution of male partner. (n=100)

Age group (yrs)	Primary infertility No.(%) n-98	2ndary infertility No. (%) n-2	Total no. (%) no: 100
20-29	22(22.44%)	0	22(22%)
30-39	60(61.22%)	0	60(60%)
40-49	14(14.28%)	1(50%)	16(15%)
50-59	2 (2.04%)	1(50%)	3(3%)

$\chi^2=248$  df=2 P value= <0.5

In this study, 98% of couples had primary & 2% of couples had secondary infertility. Statistically, the proportion between primary & secondary infertility is highly significant(P<0.0001). In this study, most of the couples (45%) reported within 3-5 yrs. of marriage. In this study, 80 % of couples had regular coitus (4-5 times /wk.). ( Table No II)

**Table II.** Infertility type, duration, and frequency of coitus

Type	Male partners (%) No.	P value
Primary	98(98%)	<0.0001
Secondary	2(2%)	
Duration(years)	Number of pt	Percentage
1-2	21	21%
3-5	45	45%
6- 1.0	32	32%
> 10yrs.	2	2%
Frequency	No. of male participants	Percentage
Adequate. (4-5, times/wk)	80	80%
Inadequate (<1 time/wk)	20	20%

$\chi^2=68.42$ , df=1

In this study, 38% of the male partners had the habits of cigarette smoking 8% had the habit of alcohol intake. In this study, most (42%) of the male partners were a businessman. (Table no-3)

**Table -III:** Particulars of the male partners of infertile couple

Smoking	Male partner	Percentage
Yes	38	38%
No	62	62%
Alcohol intake		
Yes	8	8%
No	92	92%
Occupation		
Service	25	25%
Business	42	42%
Teacher	8	8%
Abroad, management, labors)	17	17%
Others	8	8%

## DISCUSSION

Data were obtained from selected male partners of 100 infertile couples attending the outpatient department of Sylhet MAG Osmani Medical College hospital, and private chambers of gynecologists and obstetricians. Out of 100 infertile couples, 98% had primary infertility and 2% had secondary infertility. Kamal in her study showed that 60% had primary and 40% had secondary infertility<sup>8</sup>. Shamin also observed that the majority (69%) had primary and only 31% had secondary infertility. In this study, the majority of the men were businessmen (42%) only 25% were in service and the rest were abroad or in other professions. Regarding the duration of infertility, most couples (45%) reported to doctors within 2-5 years of marriage. This early reporting may be due to increased awareness among the infertile couples regarding the treatment options available now a days. 62% of the men had no habit of smoking<sup>9</sup>. On the other hand, only 8% of men admitted to taking alcohol regularly 'and the majority denied (92%) taking alcohol. This result may be biased due to social and religious barriers in our country regarding alcohol intake. Many persons would deny taking alcohol even if they are social drinkers or regular alcohol takers Eskenazi et al<sup>10</sup> A convenience sample of 97 non smoking men (aged 22-80 years) without

known fertility problems was recruited from a national government laboratory. Regarding age distribution majority of the men with both primary (98%) and secondary infertility (2%) were between 30-39 years of age. Rest were either below the age of 30 or above 40 years. Regarding coital frequency, the majority (80%) of the couples had regular coitus 4 to 5 times a week Kamal and Shamim also observed similar frequency. Regarding past medical history, the majority of men (73%) had no significant past medical history<sup>8-9</sup>. Rochebrochard et al<sup>11</sup> found that when paternal age was <40 years, with an adjusted odds ratio of 2.21 (95% CI, 1.13, 4.33) for delay in pregnancy onset (failure to conceive within 12 months) and of 3.02 (95% CI, 1.56, 5.85) for difficulties in having a baby (failure to conceive within 12 months or pregnancy not resulting in a live birth).<sup>11</sup>

## CONCLUSION

Under conclusion, this study gives an insight into male partners in of the infertile couples in the Sylhet region. The study indicates that most primary infertility reported in the early years of marriage. The male partners are mostly young middle-aged, predominantly businessmen by profession, and of middle to high socioeconomic status. Further large-scale studies should be conducted.

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