RESEARCH PAPER | Medical Science | Volume : 5 | Issue : 11 | November 2015 | ISSN - 2249-555X

A study to determine prevalence of infertility and to know socio-demographic profile of infertile women of Jamnagar district.

KEYWORDS: infertility, prevalence.

Dr. Nitin Lodha, Tutor
Department of Community Medicine, M. P. Shah Govt. Medical College, Jamnagar.

Dr. Beena Patel
Resident Doctor, Department of Community Medicine, M. P. Shah Govt. Medical College, Jamnagar.

Dr. Sudha Yadav
Ex. Professor and Head of the Department, Department of Community Medicine, M. P. Shah Govt. Medical College, Jamnagar.

ABSTRACT

Infertility is a disease of the reproductive system which affects both men and women with almost equal frequency. Aim is to determine prevalence of infertility and to know socio-demographic profile of infertile women. 570 married women of reproductive age group were included in study. Prevalence of infertility was found 5.8%. Age specific prevalence of infertility was found 12.2% in 20-24 year age, followed by 5.0% in 25-29 year age. Prevalence was found higher in Muslim(6.3%) as compared to Hindu(5.7%). Social class specific infertility was 6.9% in upper class and 5.3% in lower class. The prevalence was 9.3% in women who completed graduation, followed by 5.5% in women educated up to higher secondary, 3.7%, 4.3% in women who attained secondary and primary education respectively and 4.2% in illiterate women.

Introduction

Infertility is a disease of the reproductive system which affects both men and women with almost equal frequency. It is a global phenomenon with some portion of every human population affected. [1] Infertility affects up to 15% of reproductive-aged couples worldwide. [2] Infertility also has social moral and psychological repercussion on young couple especially the wife who has to face the undesired and sometimes cruel behaviour of immediate family as well as society. Thus infertility should not only be viewed as a medical problem but also as a medico-social problem.

Infertility in developing countries raises distinct and complex problems beyond those well known to developed nations. The effects of infertility and the concomitant need for its health care management relate to the cultural realities of specific regions. While the relevance and need for assisted reproduction may be readily established, some challenge their use in developing nations. This criticism is levelled on two grounds: First, given the overpopulation problem in many developing countries, it is argued that over fertility, rather than infertility, should be the focus of family planning programmes; and, Second, treating infertility through expensive treatments cannot be justified in low resource settings where other more pressing needs must be given priority. [3]

Aims and objectives

- To determine the community based prevalence of infertility.
- To know socio-demographic profile of infertile women.

Material and methodology

For estimating a population proportion with specified relative precision, formula used was $n = Z^2_{1-\alpha/2}\ P\ (1-P)/d^2$. At P = 0.15 (15%) [6] & d = 20% and taking 95% confidence interval (1- α = 0.95), a sample size of 544 was needed according to the table given in the WHO practical manual by Lwanga and Lemeshow (1991) [4]. To make it round figure 570 married women of reproductive age group were included to find out prevalence of infertility.

Data collection was done through oral questionnaire method using a pre-tested, semi-structured type of proforma. An oral consent was taken from all participants of the study after fully explaining the purpose of the study and assuring them of full confidentiality.

To find out prevalence of infertility, the study was carried out by undertaking house to house visits of the area of each of 30 clusters. From a random direction in each cluster 19 married reproductive age group women (15-45 years) were included in the study through house to house visits till the target of 19 women of 15-45 years were achieved. This was repeated in all 30 clusters thus a total of 570 (19 women×30 cluster) study subjects were included in the study.

Inclusion criteria:

All married women between 15-45 years age group.

Exclusion criteria:

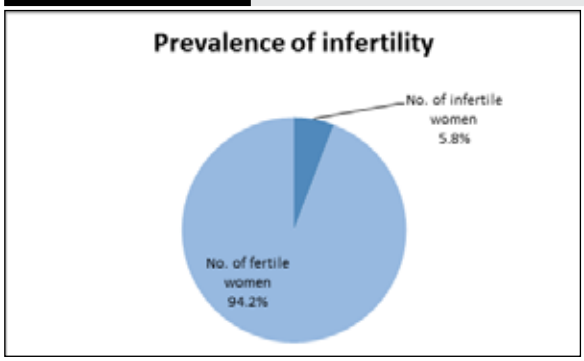
Widow and unmarried women were excluded from the study.

The data entry was done using Microsoft Office Excel 2007 and data analysis was done using SPSS Ver.20 and in Microsoft Office Excel 2007 and appropriate statistical tests were applied.

Result

In this study, out of 570 married reproductive aged women studied, prevalence of infertility among married women was found to be 5.8% and remaining 94.2% women were fertile.

Volume : 5 | Issue : 11 | November 2015 | ISSN - 2249-555X



Age specific prevalence of infertility was found 12.2% in 20-24 year age group, followed by 5.0% in 25-29 year age group, 4.0%, 3.6% and 2.9% in 40-45 year, 30-34 year and 35-39 year age group respectively. In present study overall infertility was 5.8%, religion specific prevalence was found higher in Muslims 6.3% as compared to Hindu 5.7%.

Table 1: Age and religion specific prevalence of infertility

Age group in years	No. of infertile women	Total no. of women	Age and religion specific prevalence of infertility (%)
15 – 19	0	8	0.0
20 – 24	15	123	12.2
25 – 29	9	179	5.0
30 – 34	5	140	3.6
35– 39	2	70	2.9
40 – 45	2	50	4.0
Religion			
Hindu	29	507	5.7
Muslim	4	63	6.3
Total	33	570	5.8

When we take socioeconomic class into consideration, it was seen that in class I prevalence of infertility was 5.9, in class II it was 8%, in class III 6.3%, in class IV 5% and in class V prevalence was 4.5%. So, Social class specific infertility was 6.9% in upper class (class I&II) and 5.3% in lower class (class III, IV & V).

Table 2: Social class specific prevalence of infertility

Social class	No. of infertile women	Total no. of women	Social class specific prevalence of infertility (%)
I	1	17	5.9
II	8	100	8.0
III	8	128	6.3
IV	13	259	5.0
V	3	66	4.5
Total	33	570	5.8

The prevalence was more that was 9.3% in women who had completed their graduation, followed by 5.5% in women educated up to higher secondary, 3.7%, 4.3% in women who attained secondary and primary education respectively and 4.2% in illiterate women.

Table: 3 Education specific prevalence of infertility

Education of women	No. of infertile women	Total no. of women	Education specific prevalence of infertility (%)
Illiterate	1	24	4.2
Primary	2	46	4.3
Secondary	5	135	3.7
Higher-Secondary	13	236	5.5
≥Graduate	12	129	9.3
Total	33	570	5.8

Discussion

In present study community based prevalence of infertility was found to be 5.8%. Study done by sayeed unisa (2010) found that 8.8 % women in India faced the lifetime primary/secondary infertility problem. [5]

Age specific prevalence of infertility was found 12.2% in 20-24 year age group, followed by 5.0% in 25-29 year age group, 4.0%, 3.6% and 2.9% in 40-45 year, 30-34 year and 35-39 year age group respectively suggesting infertility prevalence was higher in < 30 years age. Study done by sayeed unisa (2010) found that Age-specific lifetime primary/secondary infertility prevalence was the same for all age groups except for age group 20-24 in which it was higher (9.4%).[5] According to DLHS-III (2006-07) survey six percent of ever married women aged between 15-49 years in study state had infertility problems. She found that Age-specific lifetime primary/secondary infertility prevalence was the same for all age groups except 15-19 year and 45-49 year age group in which it was lower. [6]

Religion specific prevalence was found higher in Muslims 6.3% as compared to Hindu 5.7%. Study done by sayeed unisa (2010) found lifetime infertility 8.8%, religion specific infertility was high in Sikh 9.7%, followed by Hindu 9.0%, Muslims 8.8%, Buddhist 6.7% and Christian 6.2%. [5] According to DLHS-III (2006-07) survey six percent of ever married women aged between 15-49 years in study state had infertility problems. Religion specific infertility was higher in Muslims 7.0%, followed by 6.3% in Hindu, 5.6% in Sikh and 4.8% in Christian. [6]

Social class specific infertility was 6.9% in upper class (class I &II) and 5.3% in lower class (class III, IV & V). Study done by sayeed unisa (2010) found lifetime infertility 8.8%. She found in her study that women with middle and poorest wealth index had higher infertility than richest wealth index. [5] According to DLHS-III (2006-07) survey six percent of ever married women aged between 15-49 years in study state had infertility problems. Survey report showed that women with middle and richest wealth index had higher prevalence of infertility than poorest index, which was similar to our results. [6]

The prevalence was more that was 9.3% in women who had completed their graduation, followed by 5.5% in women educated up to higher secondary, 3.7%, 4.3% in women who attained secondary and primary education respectively and 4.2% in illiterate women. Study done by sayeed unisa (2010) found lifetime infertility 8.8%. She was found in her study that illiterate women and women with low level education had high prevalence than educated women. [5] According to DLHS-III (2006-07) survey six percent of ever married women aged between 15-49 years in study state had infertility problems. Survey report showed that there was almost similar prevalence in illiterate and literate women. [6]

Conclusion

In present study community based prevalence of infertility was found to be 5.8%. Age specific prevalence of infertility was found 12.2% in 20-24 year age group, followed by 5.0% in 25-29 year age group, 4.0%, 3.6% and 2.9% in 40-45 year, 30-34 year and 35-39 year age group respectively suggesting infertility prevalence was higher in < 30 years age. Religion specific prevalence was found higher in Muslims 6.3% as compared to Hindu 5.7%. Social class specific infertility was 6.9% in upper class (class I &II) and 5.3% in lower class (class III, IV & V). The prevalence was more

Volume : 5 | Issue : 11 | November 2015 | ISSN - 2249-555X

that was 9.3% in women who had completed their graduation, followed by 5.5% in women educated up to higher secondary, 3.7%, 4.3% in women who attained secondary and primary education respectively and 4.2% in illiterate women.

REFERENCE 1. Evens, Emily McDonald. A Global Perspective on Infertility: An Under Recognized Public Health Issue. Chapel Hill, North carolina . Carolina Papers international health 2004;vol 18. 2. Weiyuancui.Mother or nothing: the agony of infertility. World Health Organization, december 2010;Vol. 88 (12): 877-953. 3. E. Petitpierre. Challenges – Addressing subfertility/infertility in developing countries. Geneva . World Health Organisation, 2013. 4. S.K.Lwanga and S.Lemeshow. Sample size determination in health studies-A practical manual. Geneva : WHO, 1991. 5. Sayeed Unisa. Infertility and Treatment Seeking in India: Findings from District Level Household Survey. F, V & V IN OBGYN, 2010: 59-65. 6. District level health survey 3(DLHS-3). mumbai,india : international institute of population science , 2006-07.