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## A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE ON INFERTILITY AMONG WOMEN ATTENDING GYNAE OPD, SGRD HOSPITAL, VALLAH, SRI AMRITSAR, PUNJAB

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### ABSTRACT

**Introduction:** Indian society attaches a grave stigma to infertile woman. Infertility is usually defined as involuntary failure to conceive after one year of unprotected sexual intercourse. Failure by either party to "fulfil their end of the bargain" can be devastating, humiliating, and emotionally destructive (Shireen Jeejeboy, 2013).

**Aim** of the study was to assess the knowledge among infertile women.

**Methods:** A descriptive study was conducted at SGRD Hospital, Vallah, Sri Amritsar, Punjab. 100 infertile women were selected by using convenience sampling technique. Self Structured knowledge questionnaire was used to assess the knowledge on infertility among women.

**Results:** Present study revealed that the majority of women 79(79%) had average knowledge on infertility, they scored 9.00-17.00. 15(15%) of them had poor knowledge, they scored  $\leq 8.00$  and only 6(6%) of them had good knowledge, they scored 18.00-26.00. The level of knowledge showed significant association ( $p < 0.01$ ) with Educational status, occupational status, monthly income, age at marriage while rest of the variables showed non significant association.

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### INTRODUCTION

Parenthood is a fundamental human need. The urge to reproduce is virtually universal. Every human being has a desire to become a parent and look after his or her children. Fertility or the ability to produce children has a positive social value whereas; infertility has a negative social value in Indian culture.. Another reason for so much importance being attached to the social aspect of fertility is that family name will not be carried forward without a child (Evert Jessica, 2007). Infertility is usually defined as involuntary failure to conceive after one year of unprotected sexual intercourse. When a woman has never conceived, despite sexual relation, for a

period of one year, it is primary infertility, when a woman has previously conceived, and is subsequently unable to conceive,

despite sexual relation for a period of one year, it is secondary infertility (Dutta, 2004). Globally, between 50-80 million couples have a variety of biological and behavioural determinants. In India, infertility rate estimated to be 6-7%. The population of infertile couples in India is 15 million as compared to six million in USA. Estimates of infertility vary widely among Indian states from 3.7 per cent in Uttar Pradesh, Himachal Pradesh and Maharashtra, 5 per cent in Andhra Pradesh and 15 per cent in Kashmir (Mehru, 2010). Many of the causes for infertility are rectifiable leading to a fruitful family. But, majority of the infertile couples are unaware of

the reasons for infertility and the remedies available to overcome the problem. Hence, as a first step towards this, I have planned to conduct a study to assess the knowledge of infertile women on infertility at gynae OPD, SGRD hospital, Vallah, Sri Amritsar.

## OBJECTIVES

- To assess the knowledge of women on infertility.
- To find out the association of the level of knowledge with selected demographic and obstetrical variables.

## METHODOLOGY

The quantitative research approach was adopted with descriptive research design. The population comprised of infertile women and the target population was infertile women attending gynae OPD, SGRD Hospital, Vallah, Sri Amritsar. The sample of the study comprised of 100 infertile women who had fulfilled the inclusion criteria. Convenience sampling technique was employed to collect data. Ethical consideration was taken from the research and ethical committee of SGRD institute of medical sciences and research, Amritsar. A written permission was taken from the Principal, SGRD college of nursing, Vallah, Amritsar and Head of OBG department of SGRD Hospital, Amritsar.

### The tool consists of following section:

- Section A: Socio-demographic variables
- Section B: Self structured knowledge questionnaire

Self structured questionnaire consisted of 26 multiple choice questions on knowledge related to infertility, its definition, causes, investigations, treatment etc. The criterion measure used in the study was extent on level of knowledge. Maximum obtainable score was 26 and divided into average(9-17), good(18-26) and poor( $\leq 8$ ). One mark was given for right answer and zero for wrong answer. The research tool was prepared with extensive review of literature and was validated by experts from the field of obstetrics and gynaecology nursing. Prior informed consent was obtained from each study sample. Anonymity and confidentiality of each sample was maintained. Reliability of tool was .794 as calculated by cronbach's Alpha. The data was analyzed using the descriptive and inferential statistics.

## RESULTS

**Table 1:** reveals socio-demographic variables of the infertile women that majority of the women 56(56%) were in the age group of 21-25 years and only 5(5%) were in the age group of >30 years. As per the educational status 36(36%) were primarily educated and only 1(1%) were illiterate. Most of the women (86%) were housewives and only 14(14%) were working. Majority of their husbands 66(66%) were self employed and 4(4%) were unemployed. Family income per month depicts 40(40%) with 10001-15000 and only 2(2%) with income above 20000. Larger part (64(64%)) had friends as their source of information and only 1(1%) had their information from television. 73(73%) of them got married at age 20-25 years and 11(11%) got married at age less than 20 years. Most of them 89(89%) were married for 1-5 years of duration and only 11(11%) were married for 6-10 years. 73(73%) of them stated that they had no menstrual abnormalities and only 27(27%) of them had menstrual abnormalities. Majority

96(96%) of them stated that they didn't have any gynaecological abnormalities and 4(4%) of them had gynaecological abnormalities.

**Table 1. Frequency and percentage distribution of socio-demographic variables of infertile women**

Socio-demographic variables	N=100	
	Frequency (f)	Percentage (%)
Age (in years):		
<21	11	11.0
21-25	56	56.0
26-30	28	28.0
>30	5	5.0
Educational status		
Illiterate	1	1.0
Primary	32	32.0
Secondary	36	36.0
Matriculation	22	22.0
Graduate or above	9	9.0
Occupational status		
Working	14	14.0
Housewife	86	86.0
Occupational status of husband		
Service	30	30.0
Self Employed	66	66.0
Unemployed	4	4.0
Monthly income in Rs.		
5000 – 10000	33	33.0
10001-15000	40	40.0
15001-20000	25	25.0
>20000	2	2.0
Source of information regarding infertility		
News papers	6	6.0
Health personnel	29	29.0
Friends	64	64.0
Television	1	1.0
Age at marriage (in years)		
<20	11	11.0
20-25	73	73.0
26-30	16	16.0
Duration of marriage (in years)		
1-5	89	89.0
6-10	11	11.0
Menstrual abnormalities		
Yes	27	27.0
No	73	73.0
Gynecological abnormalities:		
yes	4	4.0
No	96	96.0
Treatment option for infertility		
Drug therapy	98	98.0
Hormonal therapy	2	2.0
Frequency of staying together		
Meeting frequently	91	91.0
Meeting infrequently	9	9.0

Maximum women 98(98%) opted for drug therapy and only 2(2%) opted for hormonal therapy. 91(91%) of them stay with their husbands and 9(9%) of them meet infrequently.

**Table 2:** reveals that majority of women 79(79%) had average knowledge regarding infertility i.e. they scored marks between 9.00-17.00. 15(15%) of them had poor knowledge, they scored  $\leq 8.00$  and only 6(6%) of them had good knowledge, they scored 18.00-26.00.

**Table 3: DEFINITION:** The present study shows that 92(92%) of women stated the correct definition of infertility, 34(34%) stated the correct definition of primary infertility and only 9(9%) knew about the secondary infertility. 54(54%) of the women said that both male and female are responsible for infertility, 44(44%) said that it is a common problem. 37(37%) of them said that infertility is just a Woman's problem and 57(57%) of them stated that age has effect on infertility.

27(27%) of the women marked that both male and female should be investigated first. 41(41%) of them stated abnormal mensus, blocked tubes and obesity affect fertility.

**OVULATION:** 36(36%) of them stated the correct definition of ovulation. 58(58%) of women marked that ovulation occurs at 10<sup>th</sup> day of regular periods.

**Table 2. Frequency and percentage distribution of knowledge score of women on infertility**

N=100						
Level of knowledge (Score Range)	f (%)	Range	mean	SD	Mean %	Maximum Possible score
Poor (<8.00)	15(15.0)					
Average (9.00-17.00)	79(79.0)	6-21	12.04	3.45	46.3	26
Good (18.00-26.00)	6(6.0)					

**Table 4. Association of level of knowledge with socio-demographic and obstetrical variables of women on infertility**

Socio-demographic/ obstetrical variables	N	Level of Knowledge			Chi-square		
		Poor	Average	Good	χ <sup>2</sup>	df	p value
		≤ 8.00	9.00 - 17.00	18.00-26.00			
Age (in years)							
<21	11	4	7	0	9.91	6	0.129
21-25	56	8	46	2			
26-30	28	3	21	4			
>30	5	0	5	0			
Educational status							
Illiterate	1	1	0	0	52.72	8	0.000**
Primary	32	7	24	1			
Secondary	36	6	30	0			
Matriculation	22	1	21	0			
Graduate or above	9	0	4	5			
Occupational status							
Working	14	0	9	5	26.84	2	0.000**
Housewife	86	15	70	1			
Occupational status of husband							
Service	30	2	23	5	20.79	4	0.000**
Self Employed	66	10	55	1			
Unemployed	4	3	1	0			
Monthly income in Rs.							
5000 – 10000	33	8	25	0	38.72	6	0.000**
10001-15000	40	5	34	1			
15001-20000	25	2	20	3			
>20000	2	0	0	2			
Source of information regarding infertility							
News papers	6	1	5	0	2.26	6	0.894
Health personnel	29	3	25	1			
Friends	64	11	48	5			
Television	1	0	1	0			
Age at marriage (in years)							
<20	11	3	8	0	13.03	4	0.011*
20-25	73	7	63	3			
26-30	16	5	8	3			
Duration of marriage (in years)							
1-5	89	15	68	6	3.29	2	0.193
6-10	11	0	11	0			
Menstrual abnormalities							
Yes	27	2	22	3	3.06	2	0.216
No	73	13	57	3			
Gynecological abnormalities							
yes	4	0	4	0	1.11	2	0.575
No	96	15	75	6			
Treatment option for infertility							
Drug therapy	98	15	77	6	0.54	2	0.762
Hormonal therapy	2	0	2	0			
Frequency of staying together							
Meeting frequently	91	13	72	6	0.94	2	0.625
Meeting infrequently	9	2	7	0			

\*\* P<0.01 highly significant  
\*P<0.05 significant

**RISK FACTORS:** 40(40%) of the women said that overweight, STDs, smoking and alcohol are the risk factors.

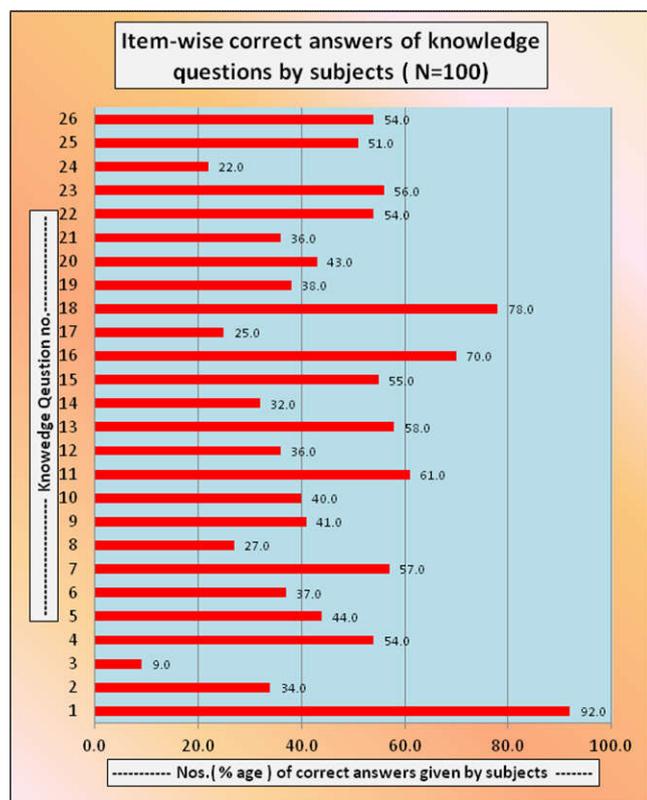
**CAUSES:** 61(61%) of them marked ovulation, tubal block and hormonal imbalance as the causes for female infertility.

**FERTILIZATION:**32(32%) of them stated that fertilization is union of sperm and ovum.

**Conception**

55(55%) of them marked that fertile period is middle ten days of menstrual cycle. Majority 70(70%) of the women said that conception is favoured by regular periods.

**Table 3. Frequency and percentage distribution of item wise correct answers about knowledge given by women on infertility**



**Treatment:** 25(25%) of the women said that a couple should seek doctor's advice if pregnancy does not occur even after one year of sexual life. 78(78%) of them preferred doctor for treatment. 38 (38%) of them said that infertility is treated by drug therapy, hormonal therapy, tubal surgery and test tube baby. 51(51%) of them said that availability of infertility centre is at primary health centres, community health centres and district hospitals. 43(43%) of them stated the correct answer about tests done for infertility i.e. semen analysis for male, testing ovulation for females and testing for tubal patency. 36(36%) of them stated the correct answer about test tube baby.

**Prevention:** 54(54%) the women said that preventive measures for female infertility are by avoiding unsafe abortions, STDs, excessive alcohol and smoking.

**Adoption:** 56(56%) of them said that infertile women can adopt a child.

**MEDICO-LEGAL ISSUES:** 22(22%) of them said that legal issues of the infertile couple are usually property related, parenthood related and emotion/social related.

**COST:** 54(54%) the women stated that cost of In vitro fertilization is in range of Rs. 3,00,000-5,00,000.

**TABLE 4:** depicts the significant association of knowledge with educational status, occupational status, occupational status of husband, monthly income and age at marriage while age, source of information, duration of marriage, menstrual abnormalities, gynaecological abnormalities, treatment option

and frequency of staying together shows non significant association.

## DISCUSSION

The analysis of data regarding knowledge on infertility among infertile women revealed that majority of women (79%) had average knowledge regarding infertility, 15% had poor knowledge and 6% had good knowledge. This was supported by similar study by Dyer et al. (2014) conducted a descriptive study to assess the knowledge of infertile women about infertility and the causes of infertility, their treatment seeking behaviour in selected urban community areas of South Africa. They had selected 150 infertile women between 15 to 44 years of age by simple random method and data were collected by questionnaire method. The findings showed that 28.7% women had little knowledge about human reproduction and treatment options for infertility. Eleven percentages of women correctly answered for modern treatment options (Dyer, 2014). The present study aimed to find out the association of the level of knowledge with selected demographic and obstetrical variables. The study results showed that education, occupational status, monthly income and age at marriage showed significant association with knowledge ( $p < 0.01$ ) and rest of the variables viz. age, source of information, duration of marriage, menstrual abnormalities, gynaecological abnormalities and treatment option showed non significant association.

## Recommendation

- A similar study could be taken up with a large sample for assessing the knowledge of infertile couples on infertility for making a more valid generalization.
- A comparative study could be conducted to assess the psychosocial problems between infertile males and females.
- A similar study may be conducted with different settings.
- A study could be done to develop the health education packages on infertility and evaluate its effectiveness.

## Implications

The findings of the study have several implications which were discussed under the following area:

### Nursing Practice

Nurses are in the best position to give information regarding various aspects of infertility, as the infertile women will be free to reveal their problems to nurses. Since, the present study showed that majority of women had inadequate knowledge on infertility; nurses in changing era have to prepare themselves to provide care and give appropriate information to the women. There is a greater demand for getting the resources extracted from infertile women, by the nurses in the form of knowledge. Realizing the health care needs of people, nurses must incorporate scientific based knowledge.

### Nursing Administration

Nurses have to play a multidimensional role and their skills have to be combined with a specialized knowledge base to ensure improved health status of the infertile women. The

nurses could participate in public awareness programmes through mass media and administration should take initiative to organize educational programmes for health personnel regarding various aspects of infertility. Nurses, in turn could improve the knowledge of infertile women for a good prognosis in future.

### **Nursing Education**

The findings of the study indicated that more emphasis should be placed in the nursing curriculum on infertility. Periodic infertility awareness programmes should be arranged for nursing students which would be a great help for promoting themselves as well as other who are in need.

### **Nursing Research**

The study will be a motivation to beginning researchers to conduct similar studies on a large scale.

The findings of the study serve as a basis for the professional and the student nurses to conduct further studies on infertility. In depth study on counseling for infertile couples, prevention and treatment of infertility in low resource settings could be conducted.

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