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A STUDY ON ASSESSMENT OF RISK FACTORS, KNOWLEDGE AND LIFE SATISFACTION AMONG INDIAN INFERTILITY WOMEN AT A TERTIARY CARE HOSPITAL

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ABSTRACT

Introduction: The failure to conceive spontaneously following a year of consistent, unprotected sexual activity is known as infertility. Numerous factors, including the length of sexual relations, frequency of coitus, and age of the couple, influence the likelihood of conception. Both male and female variables and weaknesses may be to blame for this. **Methods and Material:** The Present study was cross sectional study conducted in Sai mega hospital, Kurnool. This study was conducted on 112 patients. Knowledge assessment questionnaires among infertility women and their level of education was assessed by using fertility awarenessquestionnaire. Life satisfaction was assessed by using SWLS scale, depression and anxiety were measured among infertility women by using HADS scale. **Results:** In this study, Overall 112 infertility women, most of the patients from age group of 26 – 30 yrs (44.6%). Most important risk factor for infertility in female was PCOD (18.75%). Most of the infertility women have less knowledge regarding risk factior for infertility. Most of the women are satisfied 37 (33.0%) with their life and some women are slightly satisfied 30 (26.7%) with their life. Most of the infertility women were having anxiety and depression. **Conclusion:** From the above study, we concluded that most of the women are suffering from primary infertility at the age from 26 – 30 yrs. And the major risk factor for infertility in female was PCOD and risk factor for infertility in male was asthenospermia.

KEYWORDS: Knowledge, Infertility, Adult, women.

INTRODUCTION

Infertility is a reproductive system illness that nearly equally affects men and women. According to the World Health Organisation, primary infertility is the inability to conceive after a year of unprotected sex, while secondary infertility is the inability to conceive after a prior pregnancy. Throughout their reproductive years, 8–12% of couples worldwide experience infertility (WHO, 1991). Every married couple want to have a kid because they believe it will enrich and brighten their lives. Women have always been stigmatised by infertility. Infertile women experience a variety of societal challenges, including exclusion from religious rituals and discrimination. Moreover, the male component of infertility is a taboo topic that is rarely brought up in society. This limits the couples' relationship, which leads to divorces.[1,2,3]

India introduced the world's first family planning programme in 1952 in an effort to combat the population boom by implementing various public health programmes as needed. Nonetheless, several studies have revealed that infertility has recently been a cause for concern in India. The National Family Health Survey (2015–2016) found that 4.9% and 8.5% of Indians, respective.

A neglected area of reproductive health is infertility. Every couple has the right and the desire to procreate in order to preserve their lineage. Research has demonstrated that infertility, whether primary or secondary, has a negative impact on a patient's mental health and frequently results in strained relationships with family members. As a result, it has an impact on couples' quality of life (QoL) both psychologically and physically. It also causes stigma and discrimination in society, particularly among women. A number of sociodemographic, physiological, environmental, and health-care-seeking behavioural factors may interact with the quality of life for women who are infertile.[4,5,6]

A worldwide survey of over 17,500 women, the majority of whom were of childbearing age, from ten different nations found that understanding about infertility and the biology of reproduction was lacking. A lot of women are unaware of when to seek therapy and when in the month they are most fertile. Among the various risk factors for infertility are smoking, alcohol consumption, menstrual abnormalities, obesity, advanced maternal age, and STDs. By enabling couples to avoid certain risk factors that could contribute to infertility, a greater understanding of these factors may assist to reduce the incidence of the condition. This information might also lessen the psychological strain on individuals who are touched by the infertile couple by enabling a larger segment of society to comprehend and sympathise with them. Furthermore, it has been discovered that a critical component of patient satisfaction with infertility treatment is patient education. Studies on the attitudes, behaviours, knowledge, and practices around infertility or specific treatment choices have been conducted in industrialised nations, however despite the high prevalence of infertility in India, very little information about this group is accessible.[7,8,9,10]

AIM
The main aim of the study was to assessthe risk factors, knowledge and life satisfaction among Indian infertility women attending tertiary care hospital.

OBJECTIVES
- To study the risk factors for infertility in the patients attending at a tertiary care hospital
- To evaluate the fertility knowledge and awareness among infertility women
- To assess the life satisfaction and anxiety depression levels of Indian infertility women.

METHODOLOGY
Ethical Approval: The study is initiated after the clearance of institutional ethics committee
Study Site: Sai mega hospital, Kurnool.
Study Duration: The study conducted for 6 months.
Sample Size: 112 subjects
Study Design: Cross sectional study
Study Criteria
Inclusion criteria: All the patients visiting hospital, who are not conceived even after one year of having unprotected sexual intercourse , willing to participate in the study.
Exclusion criteria: Secondary infertility patients having children are excluded.

Data Collection
Patient selection was done based on inclusion-exclusion criteria and data was collected by using case report form. Knowledge assessment among women and their level of education was assessed by using fertility awarenessquestionnaire. Life satisfactionwas assessed by using SWLS scale, depression and anxiety were measured among infertility women by using HADS scale.

Statistical Analysis
The data were entered into Microsoft Excel Spreadsheet and Statistical analysis was performed by simple statistical methods to generate Frequencies, Percentages.

RESULTS
1. **Subject Characteristics.**

Subject Characteristics		Number of patients	Percentage
Age	Below 15yrs	0	0%
	15-19 yrs.	1	0.8%
	20-25yrs	36	32.1%
	26-30yrs	50	44.6%
	31-35yrs	18	16.0%
	36-40yrs	4	3.5%
	41-45yrs	2	1.7%
	45-50yrs	0	0%
	50-55yrs	1	0.8%
Types Of Infertility	Primary infertility	61	54.4%
	Secondary infertility	41	36.6%
Duration of marital life years	1-3yrs	34	30.3%
	4-6yrs	35	31.2%
	7-9yrs	25	22.3%
	10-12yrs	11	9.8%
	13-15yrs	4	3.5%
	16-18yrs	0	0%
	19-21yrs	1	0.8%
	22-24yrs	0	0.%
	25-27yrs	0	0%
	28-30yrs	0	0%
	31-33yrs	1	0.8%
	34-36yrs	1	0.8%

Table 1 shows the subject characteristics. The highest number of women belonging to age groupof26-30yrs (44.6%). The number of infertility women suffering from primary infertility were 61 (54.4%) and infertility women suffering from secondary infertility were 41 (36.6%). Among 112 infertility women most of the women have marital life duration of 4 – 6 years were 35.

2. Risk Factors.

Risk factors	Number of patients	Percentage
PCOD	21	18.8
Oligospermia	17	15.2
Asthenospermia	27	24.1
Low AMH	12	10.7
Obesity	1	0.9
Uterine fibroids	5	4.5
Endometriosis	6	5.4
Hypoplastic uterus	2	1.8
Hydrosalphynx	11	9.8
Follicular cyst	1	0.9
Azospermia	4	3.6
Ovarian cyst	5	4.5
Varicose veins	2	1.8
Unexplained infertility	1	0.9
Female factor	53	47.32%
Male factor	45	40.17%
Both	14	12.5%

Table 2 shows that risk factor causing infertility in female was majorly PCOD 21, low AMH 12, hydrosalphynx 11, endometriosis 6, uterine fibroids 5, ovarian cyst 5, hypoplastic uterus 2, follicular cyst 1. Risk factors causing infertility in male was Asthenospermia 27, oligospermia 17, azospermia 4, varicose veins 2, obesity 1. And some infertility women were suffering from unexplained infertility cause. Risk factors for infertility were divided into three categories: female factors, male factors and both. Most of the risk factors for infertility were female factors 53 (47.32%), male factor were 45 (40.17%) and both male and female were 14 (12.5%).

3. Knowledge Assessment And Level Of Education Among Infertility Women.

Knowledge assessment questions	No of patients given right answer	Percentage	Illiterates	1-10th class	Intermediate	Degree	PG
At which age is there a marked decrease in women ability to become pregnant	40	35.70%	2	9	6	16	7
At which phase of menstrual cycle you are most likely to become pregnant	44	39.2%	1	11	10	16	6
At what age it is easier to become pregnant	58	51.70%	6	15	12	17	8
Which of these factor is the highest infertility risk factor	25	22.30%	3	8	5	7	2
Is past history of intake of oral contraceptive pills associated within fertility	50	44.60%	2	13	8	18	9
When does a women attempting to become pregnant have to consult a fertility specialist if she is aged less than 35 years	41	36.60%	1	6	13	13	8
When does a women attempting to become pregnant have to consult a fertility specialist if she aged more than 35 years	31	27.60%	2	7	4	13	5
A 50 years old women desires pregnancy which is most likely option to choose	34	30.30%	0	10	13	8	3
What do you know about surrogacy	30	26.70%	0	7	9	9	5

When we assessed the response in relation to age related decline in fertility, it was found that more than half of women (51.70%) were aware that young women are more fertile and it is easier to achieve pregnancy between 20-30 years. this awareness was demonstrated significantly high across graduation level students. Only

(35.70%) participants could correctly identify critical age threshold of 35 years after which it becomes difficult to achieve pregnancy. Almost (44.60%)associated past intake of combined oral contraceptive pills with infertility this belief was similarly demonstrated high in graduation level women. 60-70% of women were not aware of the duration after which to consult a fertility specialist if they have been trying for pregnancy and are unable to achieve the same. Only 30.30% women were aware of the need of Assisted reproduction and donor oocyte at the age of 50 years, on subgroup analysis women with graduation educational also low in knowledge regarding the need of ART and the option of donor oocyte in advanced age .similarly knowledge regarding surrogacy was found to be very low(26.70%).

4. Satisfaction With Life Scale Score.

Life satisfaction scale	No of patients	Percentage
Extremely satisfied (30 – 35)	14	12.5%
Satisfied (25 – 29)	37	33.0%
Slightly satisfied (20 – 24)	30	26.7%
Slightly dissatisfied (15 – 19)	16	14.2%
Dissatisfied (10 – 14)	12	10.7%
Extremely dissatisfied(5 – 9)	3	2.6%

Table 4 shows that the most of the infertility women 37 (33.0%) were satisfied with their life and some women 30 (26.7%) were slightly satisfied in their life. 14 (12.5%) infertility women were extremely satisfied in their life. 12 (10.7%) women were dissatisfied in their life. 3 (2.6%) infertility women were extremely dissatisfied in their life. 16 (14.2%) women were slightly dissatisfied in their life.

5. Assessment Of Depression And Anxiety By Using HADs Scale.

HADS scale score	Depression	Percentage	Anxiety	Percentage
0 – 7 normal	27	24.1%	38	33.9%
8 – 10 borderline depression/anxiety	47	41.9%	34	30.3%
11 – 21 abnormal depression/anxiety	38	33.9%	40	35.7%

Table 5 shows that depression and anxiety were measured among infertility women by using HADS scale and results are observed. Most of the infertility women are having anxiety 40 (35.7%) and some of them having borderline anxiety 34 (30.3%). Among 112 infertility women, 47 (41.9%) were having borderline depression and 38 (33.9%) infertility women were having depression. Hence, most of the infertility women were having anxiety and depression.

DISCUSSON
Infertility is a major health concern and globally it affects 48 million couples with more prevalence in developing countries. Overall 112 infertility women, most of the patients from age group of 26 – 30 yrs (44.6%). In this study, from 112 infertility women, most of them was suffering from primary infertility 61 (54.4%). In addition, secondary infertility was 41 (36.6%). Duration of marital life in years among 112 patients, most of women have marital life duration of 4-6 yrs (31.2%) and 1-3 yrs (30.3%). In our study, among 112 infertility women highest marital life duration was found to be 34 – 36 yrs. Among 112 patients, most important risk factor for infertility in female was PCOD (18.75%), and low AMH (10.7%). Risk factor for infertility in male was Asthenospermia (24.10%) and oligospermia (15.17%) is the second most risk factor for male infertility. To 112 infertility patients, knowledge assessment questions (9 questionnaires) was provided and outcomes were observed. Most of the infertility women having knowledge regarding age required to became pregnant easily, role of contraceptive pills in fertility. Most of the infertility women have less knowledge regarding risk factor for infertility.

In the above study, satisfaction of life in infertility women was observed by using satisfaction with life scale (SWLS)which contains five questionnaires and observed that most of the women are satisfied 37 (33.0%) with their life and some women are slightly satisfied 30 (26.7%) with their life. In the above study, depression and anxiety was measured among infertility women by using HADS scale and results are observed. Most of the infertility women are having anxiety 40 (35.7%) and some of them having borderline anxiety 34 (30.3%). Among 112 infertility women, 47 (41.9%) were having borderline depression and 38 (33.9%) infertility women were having depression. Hence, most of the infertility women were having anxiety and depression. Counselling should be needed to avoid depression and anxiety among infertility women, which will help to improve chances of fertility.

CONCLUSION
From the above study, we concluded that most of the women are suffering from primary infertility at the age from 26 – 30 yrs. And the major risk factor for infertility in female was PCOD and risk factor for infertility in male was asthenospermia. Most of the infertility women were not having knowledge regarding fertility and ART and surrogacy. Most of the infertility women were satisfied in their life and some are slightly satisfied. In

the above study most of the infertility women were suffering from anxiety and borderline depression. Hence counselling should be provided to infertility women to improve their fertility and can make treatment successful.

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