### A Study to Determine the Proportion of Factor Associated with Infertility Among Eligible Couples Visiting the Infertility Clinics of Vadodara

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#### Key Words:

Determine, proportion of factor, associated, infertility, eligible couples, infertility clinics

#### Abstract:

Background of the study: God gave all humans the precious gift of reproduction. God made this earth so that all of his living creatures may populate, replenish, and advance it. Every human is given a life at birth. He gains a new day every day, not just to live but also to raise his children and double his happiness. Reproduction is the process through which two individuals of the same species come together to create a new generation. 1) To determine the causes of infertility among couples who attend the infertility clinics in Vadodara. 2) To determine whether there is a correlation between certain demographic factors and infertility among couples that frequent infertility clinics. Materials and Methods: A cross-sectional research design and a quantitative evaluation research approach were employed in this study. 75 infertile patients from the Anantshree, Sukun, and Vaniya hospitals in Vadodara, Gujarat, were the source of the data. Before beginning the study, the investigator requested written permission from the relevant authority. Cross-sectional research design and a quantitative assessment research approach were employed in this study. The 75 samples of infertile couples were gathered using a non-probability convince sampling technique, and the data were collected by administering a self-structured check list with four factors: female infertility, male infertility, lifestyle, and psychological. Age, Gender, Religion, Residential Area, Couples Attending Infertility Clinics, Year of Marriage, and other demographic factors were considered. women's educational status, Work status of women and their financial situation. The standard deviation and chi square test, as well as other descriptive and influential statistics, were used to analyse the data. Results: In this study, 72 (96%) of the samples had mild cases of infertility, and 3 (4%) of the samples had moderate cases. O samples were severely infertile. At the 0.05 level of significance, the proportion of demographic variables among infertile couples was non-significant in chi square. Conclusion: The goal of the current study was to identify the percentage of infertility-related factors among eligible couples visiting the infertility clinics in Vadodara.

#### 1. Introduction

God gave all humans the valuable gift of reproduction. God made this earth so that all of his living creatures may populate, replenish, and advance it. Every human is given a life at birth. Each single day increases his ability to not only live but also to raise his children and increase his overall satisfaction. Reproduction is the process through which two individuals of the same species come together to create a new generation.1 A crucial aspect of human life is fertility. In our culture, having children is the most significant aspect of a couple's marriage. When the baby kicks for the first time in utero, the mother is overcome with joy. Being born is a wonderful feeling. when there hasn't previously been a pregnancy in primary infertility. In cases of secondary infertility, there has previously been a pregnancy, but the couple is now unable to get pregnant, even after one year of regular coitus without the use of contraception. Sperm must ascend through the vagina, cervix, and uterus into the fallopian tube in order for pregnancy to occur. The fallopian tube receives the released ovarian ovum. The ampulla portion of the fallopian tube is where fertilisation takes place. The uterus is where the fertilised ovum implants. The sperm can last for 48 hours in the vaginal tract. The ovum, which can survive for 24 hours, is discharged on day 14 of a 28-day cycle. Therefore, for fertilisation to take place, coitus must take place at least 48 hours after the release of the ovum. In less than a year after an unprotected coitus, about 85% of women would become pregnant. 10-15% chance of infertility. increases to 30% after age 35. 35-year-old women with a consistent 28-day cycle after one year. women over

35 or those with irregular menstrual periods within 6 months.2 There are more than a billion people living in India, and a kid is born there every single second. In terms of population, it is second only to China. However, statistics indicate that 2.5% of Indians are childless. In Gujarat, 5.2% of the estimated population has experienced impaired infertility, according to statistics data. Infertility is a social injustice and inequality issue in addition to a health issue. A contributing factor to female infertility is a lengthy, irregular menstrual cycle. A thorough history of coital exposure frequency. Tubal obstruction brought on by the infection may be indicated by a history of puerperal pyrexia or copper-T insertion. Radiation and other cancer treatments in the past. Obesity, underweight, drinking, smoking, and eating junk food regularly are all problems. A tubal blockage caused by adhesions may be indicated by medical issues such as hormonal imbalance, polycystic ovarian disease, a history of diabetes mellitus, thyroid disease, or any type of pelvic or abdominal surgery, including appendicitis.2 But thanks to advancements in medicine, infertility can now be treated. In vitro fertilisation (IVF), test tube pregnancy, and surrogacy are some of the methods used to become pregnant. This will be a blessing for couples who are infertile or don't have children. There isn't much proof supporting the women's claims that

they have encountered the issue. A prenatal society, which regards women primarily for their capacity to bear children, is to blame for the agony of infertility.1

#### 2. Methodology

This study employed a quantitative evaluation approach to estimate the percentage of infertilityrelated variables among eligible couples visiting infertility clinics. The research design outlines the tactics that were used to create objective and understandable information and refers to all of the researchers' overall approach for obtaining an answer to the research topic. To achieve the study's goals, a cross-sectional research approach was employed. The study is carried out in a few Vadodara infertility clinics. Three clinics are chosen for this study; one clinic is chosen for the pilot study, and two clinics are chosen for the main study. The instrument included two sections, the first of which contained demographic data and the second of which was a structured checklist with 50 questions and a yes-or-no grading scheme. The Vadodara-based Sumandeep Vidyapeeth Institutional Ethics Committee gave its clearance for the study's conduct. Regarding the study participant's willingness to participate in the research study, a consent form was prepared for them.

#### 3. Result:

Table 1: Frequency & percentage distribution of samples according to their demographic variables N=75

Demographic variable	Frequency	Percentage		
Age				
18-25 year	7	9.33		
26-30 year	22	29.33		
31-35 year	20	26.67		
36-40 year	10	13.33		
41 year and above	16	21.33		
Gender				
Male	15	20		

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Female		60	80			
Religion						
Hindu		61	81.33			
Muslim		8	10.67			
Christian		6	8.00			
Other	0		0.00			
Residential area						
Rural		21	28			
Urban	Urban		72			
Couple is attending infertility clinics						
Less than 1 year		6	8.00			
1 to 2 years		28	37.33			
3 to 4 years		21	28.00			
4 to 5 years		7	9.33			
6 year or more		13	17.33			
Year of marriage						
Less than 5 years 41			54.67			
5 to 7 years		19	25.33			
8 to 10 years		3	4.00			
More than 10 years		12	16.00			
Educational status of the women						
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ninterate		12	16.00			
Primary Education		12	10.00			
Secondary Education		21	28.00			
Higher Secondary		25	33.33			
Graduate and above		16	21.33			
Women is Working or Not						
Housewife		55	73.33			

Job	18	24.00	
Business Women	2	2.67	
Economic Status			
15,000 to 20,000/ month	10	13.33	
20001 to 25000/ month	44	58.67	
25001 to 30000/ month	18	24.00	
>30001/ month	3	4.00	

Above table shown that The majority of the 29.33% couples belongs to the 26-30 years of age, 80% females were affected with infertility, 37.33% couples were having attending infertility clinics up to 1-2 year, 81.33% couples were belonging to the Hindu Religion, 72% couples are living in urban area, 37.33% couples

were having attending infertility clinics up to 1-2 year., 54.67% couples having less than 5 year of marriage life, 33.33% women were study up to higher secondary educational status, 73.33% were housewife in the women is working or not, 58.67% couples having 20001-25000/month economic status.

Table 2: Distribution of frequency & percentage associated with Factors affecting Infertility

N=75

Total	Frequency	Percentage
<= 16	72	96.00
17 to 33	3	4.00
34 to 50	0	0.00

Above table shows <= 16 Mild affected, 17 to 33: Moderate affected, 34 to 50: Severe affected. Highest 96% shows the Mild affected with the factors associated with the Infertility. Only 4% are affected moderate affected with the factors associated with the Infertility.

Objective 2 shown the Data on association between factor affecting infertility demographic variables

In this section represent that the calculated  $x^2$  value was less than the table value in terms of type of demographic variables are. Age in group, gender, religion, residential area, couple attending infertility clinics, year of marriage, education status of women, women is working or not, economic status. Hence the null hypothesis Ho2 stated that there is no significant association between thelevel of knowledge & selected socio demographic variables was accepted.

#### 4. Discussion

This study dealt with the analysis and interpretation of information gathered from 75 couples that participated in the assessment of a checklist of factors connected to infertility that affected the couples seated in hospitals in Vadodara. the reviewed literature and the study's chosen hypotheses. The researcher also discusses the implications of the findings, including what they mean, why they happened the way they did, how they match with other pieces of evidence, and how they may be applied in practise. The final chapter deals with discussion of the study's summary of findings, conclusions, and limitations, as well as suggestions for



additional research. The purpose of the person study was to identify the percentage of infertility-related factors among the eligible couples who visited the chosen hospital in Vadodara. Cross-sectional research design and a quantitative assessment research approach were employed in this study. The 75 samples of infertile couples were gathered using a non-probability convince sampling technique, and the data were collected by administering a self-structured check list with four factors: female infertility, male infertility, lifestyle, and psychological. Age, Gender, Religion, Residential Area, Couples Attending Infertility Clinics, Year of Marriage, and other demographic factors were considered. women's educational status, Work status of women and their financial situation. The standard deviation and chi square test, as well as other descriptive and influential statistics, were used to analyse the data. In this study, 72 (96%) of the samples had mild infertility, while 3 (4%) of the samples had moderate infertility. 0 samples were severely infertile. At the 0.05 level of significance, the proportion of demographic variables among infertile couples was non-significant in chi square.

#### References

- Judith Mary J. To Identify the risk factors associated with infertility among women attending Infertility Clinic at Institute of Obstetrics and Gynecology, Egmore, Chennai (Doctoral dissertation, College of Nursing, Madras Medical College, Chennai).
- [2] Khosla, A., 2003. Quick revision in gynaecology.3rd ed. New Delhi: Jaypee Brothers Medical Publishers, pp.51 to 54.
- [3] Pradhan MR, Patel SK, Patel S. Risk Factors and Spatial Clustering of Primary Infertility in India. Journal of Infertility and Reproductive Biology. 2021 Mar 2;9(1):27-34.



- [4] Kumar R. Rising of infertility among younger generation in India. International Journal of Community Medicine and Public Health. 2021 Sep;8(9):4597.
- [5] 5) Unisa S, Negi K, Pujari S, Chaurasia V. Do dietary patterns and morbidities have a relationship with primary infertility among women? A study from NFHS-4 (2015–16), India. Journal of Biosocial Science. 2021 Jun 18:1-6.
- [6] 6) Pradhan MR, Patel SK, Patel S. Risk Factors and Spatial Clustering of Primary Infertility in India. Journal of Infertility and Reproductive Biology. 2021 Mar 2;9(1):27-34.
- [7] 7Gautam R, Priyadarshini E, Nirala J, Rajamani P. Impact of nonionizing electromagnetic radiation on male infertility: an assessment of the mechanism and consequences. International Journal of Radiation Biology. 2021 Jan 8:1-22.
- [8] Bala R, Singh V, Rajender S, Singh K. Environment, lifestyle, and female infertility. Reproductive Sciences. 2021 Mar;28(3):617-38.
- [9] Bhadoria S, Sharma RK, Mane MA, Sharma S, Sawant V. Sperm parameters and modifiable risk factors in infertile males: an interventional study. Executive editor. 2020 Jul; 11:806-11.
- [10] Jirge PR, Patwardhan S, Jirge SN, Bhomkar DA, Chougule SM, Salpekar A, Modi D. Resuming assisted reproduction services during COVID-19 pandemic: an initial Indian experience. Journal of human reproductive sciences. 2020 Oct;13(4):323.
- [11] Baranwal A, Chattopadhyay A. Proposition of belief and practice theory for men undergoing infertility treatment: a hospital-based study in Mumbai, India. Frontiers in Sociology. 2020:43.

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