International Journal of Medical Science and Clinical Invention 10(1): 6538-6542, 2023
DOI:10.18535/ijmsci/v10i1.016
https://valleyinternational.net/index.php/ijmsci

Research Article,

Prevalence of Infertility in Young Women, a Survey Based Study from Punjab, Pakistan.

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Abstract:

The main focus of this study is on the social isolation that many women feel because they can't have children. Only those women who had both primary and secondary infertility were included in the study. They were getting treatment for this condition at both private and public hospitals and clinics. Purposive sampling was used to find study participants, and snowballing was used to find women who couldn't have children. The snowball sampling method was used to get data from 181 infertile. Analysis was done with univariate, bivariate, and multivariate techniques. It also had an effect on one's social and family life. This added to the feeling of social isolation and withdrawal from other people. People should have more access to health care and information about infertility treatment, and current health policies should be changed. To qualify as having primary infertility, a couple must have been married for at least two years, had no children, and not use contraception. In order to determine the causes of primary infertility, researchers used logistic regression. At a 95 % Confidence Interval (CI) range of 11.6-16.0 %, the women's median age was 28.8 years (between 21 and 36 years old). HSV-2 seropositive was the leading cause of primary infertility (adjusted odds ratio: 3.48; CI: 1.892, 7.22). Men and women in the study had similar rates of primary infertility, which is in line with recent studies from Pakistan and the WHO. The significance of HSV-2 in primary infertility needs further investigation.

Keyword: Social impact, sexually transmitted illness (HSV-2), infertility

Introduction

Infertility is a frequent medical problem that affects 5–8% of couples in industrialized countries and 0.8% to 44.2 % of couples in improved countries. When you can't become pregnant after a year of trying, you've got infertility. Endometriosis, uterine fibroids, and thyroid problems can all cause infertility in women. Male infertility can be caused by a deficiency in either sperm or testosterone (Callahan LT, Caughey AB, 2018). The likelihood of being infertile rises with age. Healthcare practitioners consider a couple infertile if they fail to conceive within a year of trying. It takes six months to conceive for a 35-year-old lady, and she's diagnosed with infertility. Women over the age of 40 should be screened for breast cancer as soon as possible. Infertility does not include miscarriage or the inability to carry a child to term. Many couples struggle with infertility, and you aren't the only one. One in ten to one in fifteen women in the United States is dealing with infertility. It is considered infertility when a couple has had frequent, unprotected sexual relations for at least a year and yet cannot conceive (Mascarenhas, et al, 2018).

A person who is infertile doesn't have the ability or desire to have children. Fertility refers to the ability of a man or woman to have children. After 24 months of trying, the World Health Organization says that infertility is when you can't have a baby even though you want to. Many people have primary infertility, which is when there isn't a fertile egg in the body. Secondary infertility, on the other hand, is when the ability to

have more children stops after having a baby (Fathalla MF, 2017).

An illness of the reproductive system is defined as "clinical pregnancy after 12 months or more of regular unprotected sexual intercourse," according to an international committee for monitoring assisted reproductive technology and the World Health Organization. A woman of reproductive age who has not conceived after a year of unprotected vaginal sexual intercourse is recommended to undergo diagnostic examination and inquiry by the National Institute for Healthand Care Excellence (NICE) recommendation (National Institute for Healthcare Improvement) (Okonofua, F.E, 2016).

The WHO estimates that 186 million married women (excluding Chinese women) would be childless this year, based on data from Demographic and Health Surveys in developing nations. The full scope of the issue, on the other hand, remains a mystery. The provision of public

Healthcare, the setting of priorities, and the forecasting of need necessitate comprehensive data on infertility prevalence and relevant causes. Approximately 72.4 million couples worldwide are affected by infertility, according to the latest statistics (Ahmed AU, 2017).

Infertility tests must be scheduled and treatment must be scheduled in advance in order tolimit both over- and under-treatment in the treatment of decreased fertility. In 20% of couples, ovulation induction factors, utero-tubal intraperitoneal factor, semen migratory factor, and the male element are the biological reasons for infertility. These factors are present in 30% of couples, 10% of couples, and 30% of couples, respectively. 40% of infertile couples have a combination of variables, and 15% may not show any obvious abnormalities that would lead to a conclusive diagnosis (Che Y, Cleland J, 2012).

Based on data from the 1992 surveys of the Royal Commission on New Reproductive Technologies, researchers classified women as infertile eight years later if they had not taken contraception or had not become pregnant in the 12 months preceding the interview. According to this criterion, 8.5% of women between the ages of 18 and 44 were infertile. Infertility refers to the inability to carry a pregnancy to term and give birth to a healthy child (WHO, 2017). More than 50 million people globally and 20 to 35 million couples in Africa were predicted to be affected by infertility at some time in their reproductive life by the World Health Organization in 1991. Nigerian couples who are unable to conceive can also benefit

Damage to the fallopian tubes, which are tubes that move fertilized eggs from the ovary to the uterus, can make it hard to have children. Infertility, scars from pelvic surgery, and scars from a vaginal infection can all damage the fallopian tubes, making them less likely to work. Having problems with fertility when sperm can't get to an egg in a tube can be caused by this sperm and egg meet in the tube(Zafar et al, 2019). Before the egg is implanted in the womb, it is fertilized at this place. Old problems with fertility, such as having trouble getting pregnant, still affect about 8% to 13% of couples all over the world at this time. As many as 2% of all men have sperm that doesn't meet the right standards; this is called "male factor" infertility. Sperm cell movement may be slowed down, the concentration may be low, or the morphology may be different. Those who live in less-developed countries have more infertility and more of their infertility is caused byinfections (Mirza, I., and R. Jenkins, 2019).

Objectives:

- The purpose of this study is to examine into the prevalence and causes of primary infertilityin a group of people.
- To compare a contemporary duration technique to a classic created measure in estimatingthe prevalence of infertility.
- The objective is to assess infertile knowledge, perceptions, and myths and recommendstrategies to improve them.
- The causes and frequency of primary infertility among young women in Pakistan aredescribed in this study.
- The goal of this study is to look into the present prevalence of infertility in women and thefactors that contribute to it.

Results:

We used the Statistical Package for the Social Sciences (SPSS) to look at the questionnaire data we collected in this chapter (SPSS). Before we looked at the data, we used Cronbach Alpha to see how reliable it was. When we looked at our data, we used descriptive statistics like frequency(average), median (average), mode, measures of dispersion, and shape to figure out what the overall theme of our data was. This is how we did it: We then used cross tabulation to see how well one attribute did

when it was in the presence of another. These tests look for connections between features, and we use their p-values to make our findings. They are called the Chi square test, the likelihood ratio test, and the line to line test, and they are all used to look for connections.

Using frequency distribution tables, means, standard deviations, and bar graphs, we were able to describe the variables. The marginal model was used for both univariate and multivariate data modelling because of the individual-to-individual way of matching and the matched quadruplet kind of data. The generalized estimating equations (GEE) method of parameter estimation was used for both. GEE can be used to figure out how a generalized linear model with unknown correlations between outcomes can be estimated.

Reliability Test

A reliability test is conducted to determine the questionnaire's usefulness. Because of this, it is important to verify the data's veracity before moving on to more complex analysis. Consider Cronbach Alpha, which is described as:

Table 4.1: Cronbach's Alpha along with its Internal Consistency levels

The Cronbach's Alpha	The value of Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 < \alpha \geq 0.8$	Good
$0.8 < \alpha \geq 0.7$	Acceptable
$0.7 < \alpha \geq 0.6$	Questionable
$0.6 < \alpha \geq 0.5$	Poor
$0.5 < \alpha$	Unacceptable

In terms of Cronbach Alpha, the computed result is 0.934, which is great. Consequently, our next computational discoveries are dependable and efficient because to Cronbach Alpha's efficient value.

Descriptive Statistics:

We've compiled the data's key statistics in this area. We focused on the lowest and maximum values, as well as the mean (the central tendency) and the standard deviation (measures of dispersion). The questionnaire questions have been divided into sections for ease of use.

Table 4.2: Frequency distribution of age

Age	Frequency	%age	p-value
21 – 25	25	13.82	
26 – 30	118	65.19	
31 – 35	38	20.99	
Total	181	100.0	
Mean age ± standard deviation	28.26 ± 2.967		< 0.002

Frequency

Figure 4.1: Bar plot of Age:

A frequency distribution is one of the most frequent approaches of defining a single variable. Data values may be grouped into groups depending on the individual variable in question. Participant ages ranged from 21 to 35 years of age, with a mean age of 28.26 years. Women between the ages of 26 and 30 are more likely to be infertile. The findings are statistically significant since the p- value for the mean age is less than 0.002. Between the ages of 26 and 30, 65.19 % of women are unable to conceive a child. Tables and graphs may be used to display frequency distributions. Table 4.1 depicts a frequency distribution of ages in the population. Graphs may be used to represent the same frequency distribution seen in Figure 4.1.

Table 4.3: Frequency distribution of Education

Education	Frequency	%age	p-value
Uneducated	28	15.47	0.17
Primary	54	29.83	
Secondary	79	43.65	
Graduate	20	11.05	

Discussion:

Family systems in Pakistani society have always been arranged in a certain way, with malemembers of the family in charge and responsible for making sure the family's name lives on. It was part of this study's focus on infertility to look at women's health and relationships with their husbands. A woman's life is thrown off by infertility, making her feel guilty, disappointed, and unable to communicate with her husband or the rest of society, not to mention being broke. The demographics of the people who took part in the study showed that a lot of them had primary infertility, which meant that they had not been able to give birth to a living child. As a side note, a lot of people said they had a successful pregnancy in the past, but now they can't have children. It was found that polycystic ovarian syndrome (PCOS) was the most common cause of infertility. PCOS is a condition that causes irregular menstruation. None of the tubes were blocked. Becauseinfertility can be caused by many different things, like problems with the salpinx, oviduct, gonad, and endometrium, as well as things like early marriage, stress, and not getting enough reproductive health care (Blake D, Smith D, 2017).

This study has a lot of implications for the rest of the world. Women who are infertile are often

shamed or criticized by their family and friends because they can't have children. Because of cultural norms, women are often blamed for the infertility of their partners, even if the problem doesn't start with them. As a result, the damage to her reputation and self-esteem is even worse. People who don't have kids are more likely to have problems in the community (Callahan LT,

Caughey AB, 2018). They get harassed and discriminated against because they can't have children of their own. Second, these women don't go to family events that include their own mothers. Because they don't want to be mocked for their infertility, they avoid these events at all costs. Theyalso make their wives angry by threatening to marry again if they don't meet this main expectation of marriage. Another common reason why couples can't have children is because of a woman who takes most of the blame. This can cause family problems and the breakup of a relationship. Recent research (Hussain, Bittles , 2014) shows that infertility has a big impact on women's lives in their in-law families and their marriages, and these findings are even stronger in this new research.

Conclusion:

Infertility affects about one-fifth of the people in the world. We found that the people whotook part in the study didn't know very much about infertility. There are many people who don't understand. When it comes to infertility, people still believe that it's caused by spiritual forces, and faith healers are still sought out for help. When it comes to primary infertility, 12.6 % of women were found to have it (the 95 % Confidence Interval was 15.367-18.0 %). HSV-2 seropositive was the most common cause of primary infertility (adjusted odds ratio: 2.13; CI: 1.78,6.45). As stated by the WHO, primary infertility rates among Pakistani female participants were in the same range as previous estimates from Pakistan. HSV-2's significance in primary infertilityrequires more investigation.

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