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Original Article

# Knowledge and Perception Regarding Infertility Among Infertile Couples Reporting to Combined Military Hospital Mardan

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## ABSTRACT

***Objective:*** To determine the knowledge and perception regarding infertility among infertile couples reporting to Combined Military Hospital, Mardan.
***Study Design:*** Cross-sectional study.
***Place and Duration of Study:*** Department of Obstetrics and Gynecology, Combined Military Hospital, Mardan Pakistan, from Jan to Aug 2021.
***Methodology:*** A total of 144 infertile couples participated in this study. Age, gender, occupation, education, marriage duration, awareness about the fertile period, frequency of sexual intercourse, and willingness to perform tests were recorded on pre-designed questionnaires.
***Results:*** One hundred forty-four infertile couples participated in this study. The mean age was 33.4 years. In 144 women, the prevalence of homemakers was 138(95.83%). Most of the participants were middle passed 125(43.4%). When asked about infertility, 88(61.1%) had irregular menstrual cycles, 56(19.4%) were separate living cases, obesity 25(8.7%), and the evil spirit was considered cause of infertility in 19(6.6%) cases.
***Conclusion:*** Our study concluded that there is a lack of awareness regarding infertility among infertile couples. There are misconceptions and beliefs regarding infertility. Our study found that irregular menstrual cycles and a couple of separate living were the key parameters for infertility.

**Keywords:** Infertility, Infertile couples, Knowledge, Myths, Perception.

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## INTRODUCTION

According to World Health Organization (WHO), infertility affects about 170 million people globally.[1] There are about 187 million infertility cases in developing countries due to primary or secondary infertility.[2,3] In Pakistan, the infertility rate was reported as 22%, comprised of 4% primary and 18% secondary infertility; machismo and significant social stigma cause women to bear the blame for infertility.[4] In South Asia, social stigma is common regarding infertility which accounts for the higher prevalence of women experiencing physical violence for infertility. Inheritance deprivation, physical abuse, ostracization, sending them to their parent's homes, marriage termination, and verbal abuse were the complications faced by women with infertility.[5]

Pregnancy in Pakistan is considered a stable marital nexus part and parcel. Male children are considered as a security and income source in older age. One study in Pakistan reported that about 68% of women faced marital conflict due to a son's birthing failure or lack of giving live births as a secondary fertility consequence.[6] Globally, infertility knowledge is derisory, and there is a lack of knowledge and awareness about reproduction biology and fertility.[7] Besides the lack of knowledge, the misconception is another parameter relevant to infertility worldwide. It also led to absurd post-coital practice range exercises.[8,9] Although various researchers around the globe tried to explore perceptions, knowledge, awareness, practices, and behaviour regarding infertility treatment, insufficient data is found in Pakistan regardless of infertility's high prevalence. The present study strived to discover various views and ideas that infertile couples who presented to Combined Military Hospital Mardan can help better understand subfertility and treatment options that can benefit the sub-fertile couple.

## METHODOLOGY

The cross-sectional study was conducted at Combine Military Hospital, Mardan, from January 2021 to August 2021 after approval (2010/Estb/EC/2021) from the Ethical Committee. The sample size was calculated based on the prevalence of infertility treatment was 3.1%.[10]

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**Inclusion Criteria**: All couples, married for 2-15 years and unable to conceive, were included in the study.

**Exclusion Criteria**: Couples with severe comorbidities, secondary infertility, and aged under 20 years were excluded.

The convenient sample of 288 infertile patients (144 couples) were enrolled. Infertility influencing factors knowledge, respondent attitude toward infertility, and infertility-associated myths and misconception were the key parts of the questionnaire. The questionnaire comprised three sections for detailed data collection was standardized for this study. The primary section includes the participant's socio-demographic parameters, such as gender, age, marital status, and educational level. The participant's general perceptions about their infertility and male or female contributor were included in the second part. Finally, the tertiary part evaluated the knowledge, risk factors, and infertility myths.

Statistical Package for Social Sciences (SPSS) version 24.0 was used for the data analysis. Quantitative variables were expressed as Mean±SD and qualitative variables were expressed as frequency and percentages. Chi-square test was applied to explore the inferential statistics. The *p*-value lower than or up to 0.05 was considered as significant.

## RESULTS

A total of 144 infertile couples participated in this study. The mean age of the patients was 33.4(SD:±4.6) years, with a range of 20 to 46 years. Most participants were middle passed 125(43.4%), followed by primary passed 81(28.12%). Table-I demonstrates the demographic characteristics of the participants. About 15 (32.6%) blamed either gender for infertility, both gender 2(4.3%), only female 1(2.1%), and unknown 31(10.8%), as shown in Table-II.

**Table-I: Demographic Characteristics of the Study Participants (n=288)**

| Parameters | n(%) |
|---|---|
| **Age (years)** | |
| <25 | 50(17.4%) |
| 25-35 | 194(67.4%) |
| >35 | 44(15.2%) |
| **Education** | |
| Primary | 81(28.1%) |
| Middle | 125(43.4%) |
| Secondary | 44(15.3%) |
| Graduate | 38(13.2%) |
| **Occupation** | |
| Armed Person | 13(90.97%) |
| Housewives | 138(95.83%) |

**Table-II: Perception Regarding Infertility Contributors (n=288)**

| Gender Contributor | n(%) |
|---|---|
| Either Male or Female | 94(32.6%) |
| Both Male and Female | 13(4.5%) |
| Only Female | 6(2.1%) |
| Only Male | 0 |
| Unknown | 31(10.8%) |

When asked about participants' perceptions regarding the reason for their infertility, only 88 (61.1%) had mentioned irregular menstrual cycle, 56(19.4%) were separate living cases, obesity 25(8.7%), evil spiritual 19(6.6%), smoking 6(4.2%), husband infertility 31(21.5%), hormonal issues 25(8.7%), working women status 6(4.2%), others 6(2.1%) were observed, as shown in Table-III. As for the interrogation about sexual intercourse, 187(64.9%) suggested 3 to 4 times weekly sexual intercourse followed by 1 to 2 times by 75(26.04%).

**Table-III: Factors for Infertility as Considered by the Study Participants (n=288)**

| Factors | n(%) |
|---|---|
| Irregular Menstrual Cycle | 88(61.1) |
| Living Separately | 56(19.4) |
| Obesity | 25(8.7) |
| Evil Spirit | 19(6.6) |
| Smoking | 6(4.2) |
| Hormones Issues | 25(8.7) |
| Husband Infertility | 31(21.5) |
| Working Women | 6(4.2) |
| Others | 6(4.2) |

## DISCUSSION

The presenting study focused on knowledge and perception regarding infertility causes and treatment approaches among infertile couples. The results revealed a lower level of knowledge among the reproductive-age population. These findings matched previous studies carried out in developing countries.[10-12] Another study in Australia found that about 50% of couples who plan to have a child were unaware of obesity and smoking's contribution to infertility.10 Our study found that a limited number of participants had infertility knowledge. Over half of the participants had misinformation about infertility.

Cultural experiences, infertility consequences, causes and knowledge could efficiently deliver care. About 19(6.6%) participants believed in supernatural or evil spirit myths as a cause for infertility. Our findings contradict another study on 104 infertile couples, where 58.8% of participants believed supernatural causes for infertility.[12] Another study reported a higher prevalence of blame for infertility among women than

males.[13] But in our study, the reasons for infertility were asked from participants, and it was found that 32.6% blamed either males or females in most cases. Most male patients conceived babies from another wife and rarely agreed to investigation for infertility.[14] Infertility among women can cause distress and loss of self-esteem. Infertility is a delinquent form for both genders, but men are less concerned about their marriage stability compared to the women.[15]

In developing countries, a similar situation is experienced by women regarding infertility consequences, which indicates irrelevance to the specific religion or culture.[16] It also reflects females' lower status in successful reproduction. The childbearing responsibilities and marriage age are delayed due to girl-child education in adolescence. Subsequently, life outcomes are affected by adolescent period intervention with time. Infertility social impact mitigation and women's status improvement can improve education initiation and strategic empowerment.[17] In our study, respondent infertility was 97.3% a major contributor to a treatable disease. In Pakistan, about 55% consider infertility a disease.[18]

Healthcare sustainability requires materials and human resources investment. However, infertility patients bear care expenses and do not enjoy such a privilege.[19] Our study also suggested that infertility services should be paid for by the government, like family planning services. Another study revealed infertility reimbursement supported by the public.[20] Our study reported a lower level of knowledge of infertility and spiritual forces belief among infertile women. Women were blamed in most cases for not conceiving a baby and sought traditional and spiritual healers for reproduction. Education needs to be improved. Our study limitation was a single-centre study conducted on only 144 couples. This study could be further improved with the commencement of training sessions and pre-designed structured questionnaires. In future, further evaluation will be carried out on infertility knowledge between men and women. This study contributed to the literature by adding useful material on subfertility, which may further guide in carrying out proper treatment.

## CONCLUSION

Our study concluded that infertility and its causes are due to the lack of awareness among Pakistani couples. Indeed, there are a lot of misconceptions and beliefs regarding infertility and its treatment. Our study found that irregular menstrual cycles among women, couples with separate living and evil spirits were the key parameters for infertility. Therefore, individuals in Pakistan must be educated about infertility and its causes so that their misconceptions can be cleared and treatment, if necessary, can be sought on time.

**Conflict of Interest:** None.

**Authors' Contribution**

Following authors have made substantial contributions to the manuscript as under:

SK & UA: Conception, study design, drafting the manuscript, approval of the final version to be published.

SP & UU: Data acquisition, data analysis, data interpretation, critical review, approval of the final version to be published.

SNK & SZ: Critical review, drafting the manuscript, approval of the final version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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