

Knowledge, Attitude and Practice about Male Infertility among Men and Women in the Field Practice Area of a Tertiary Care Teaching Hospital

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ABSTRACT

Background: Infertility causes distress among 15% of global population. The common myth is that women contribute to a higher level for this data than men.

Purpose: Hence a questionnaire study was done in the field area of a tertiary care teaching hospital and research centre.

Methods: A total of 100 male and 100 female participants of age group ≥ 18 years of age between the months of May 2018 and August 2018. This study was done to describe the knowledge attitude and perception and myths prevalent in the study population.

Results: The analysis revealed that there is an exponential increase in the knowledge aspect regarding the common causes of infertility and also women are not considered as the sole reason for infertility anymore. The attitude towards infertility as a disease also has changed to the better. The people have exhibited that the common folk has realized that allopathy helps better in curing infertility than other quacks.

Conclusion: Furthermore the study participants have recognized that infertility is not ground for divorce. Also the familiarity to IVF and adoption has expanded.

Key words: Infertility, Knowledge, Male

INTRODUCTION

The World Health Organization defines infertility as failure to achieve clinical pregnancy after 12 months or more of regular unprotected sexual intercourse.^[1] However, in Indian society, it has more psychological, economic, and medical implications resulting in trauma and stress.^[2] The norms of the society and their religious perceptions consider infertility as a blotch in very many levels. It is usually the women of the family who bear this burden of the family. Psychologically, the infertile woman exhibits significantly higher psychopathology in the form of tension, hostility, anxiety, depression, self-blame, and suicidal ideation.^[2,3]

There are many factors known to have caused infertility in both men and women such as chemicals used in agriculture, rise of body temperature due to tight outfits, excessive use of sauna and spas, mobile phone signals, stress and anxiety

caused due to heavy workload, using laptops too much, and alcohol and drug abuse; unhealthy diet has all been proved as causes for infertility.^[1,4]

Although infertility is prevalent in approximately 15% of the world population, it is mostly infertility in women that have been reported in many countries. Due to the patriarchal preference in many countries, the prevalence of male infertility has not been reported accurately.^[5] Many causes have been identified for causing infertility in males such as oligoteratoasthenozoospermia, asthenozoospermia, teratozoospermia, and azoospermia. Male infertility accounts for one fifth of total infertile population of the world.^[6]

Many studies have been conducted by various people to ascertain the level of knowledge in men and women of various age groups regarding the factors causing infertility in both sexes.^[7-10]

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Although infertility causes stress and anxiety in both spouses, it is usually the women who are badly affected. Worldwide, reports have been made women undergoing physical and mental distress, threats of divorce or remarriage for the men, and even physical abuse by both spouse and in-laws.^[10]

Many researchers exploring the knowledge, behaviors, perceptions, and practices regarding infertility or certain treatment options have been carried out in several countries, but very limited data are available from the population about male infertility and there are no scientific studies which explored Tamil Nadu. Hence, this study aims to describe the knowledge, attitude, and practice of both sexes toward male infertility in the field area of tertiary care teaching hospital and research center.

METHODS

The proposed study design was a cross-sectional prospective study. The ethical clearance was obtained as per the protocol from the Institutional Ethics Committee (IEC) of our college before the commencement of the research work (Ref. TSRMMCH and RC/IEC-No.115 dt. 05.12.2017).

We included convenient sample as 200 of both 100 men and women equally. Inclusion criteria were the individuals whose age is 18 and above years during our study period and expressed their willingness to participate in the study. We have informed to all the participants about our objective, scientific importance, confidentiality of the data, and publication details. All the participants accepted and written informed consent was obtained from them. We excluded those who were not willing to consent for the study.

The study was conducted at field practice area of tertiary care teaching hospital and research center between May 2018 and August 2018. A semi-structured pre-validated questionnaire was given to all the participants and asked them to answer the questions. As the questionnaire was prepared in English, the illiterate or vernacular medium people were explained and assisted by the researcher.

The questionnaire contained four parts.

1. Part I: The demographic data of the participant were obtained in this part. The name (optional), age, sex, educational and occupational status of the participant, and their marital status were obtained
2. Part II: Knowledge regarding factors which influence infertility and common misconceptions. This part was used to assess the knowledge level of the participants regarding infertility and who among the spouse is most likely to be the one responsible for it. Their understanding level and misconceptions regarding the causative factors for infertility such as a history of infections of the genitourinary tract, alcohol abuse, smoking, strenuous exercise, previous use of condoms, black magic, supernatural causes, psychological distress, marriage at an advanced age, diabetes mellitus, obesity, and any others were elicited
3. Part III: Attitude of the respondents regarding infertility. This part was to evaluate their attitude toward male infertility like if infertility is a disease and if it can be treated medically, of which the spouse should be investigated first and attitude toward secondary infertility. The most important care-seeking behavior of the population that is their first contact person was also asked in this part
4. Part IV: Perception and myths associated with infertility. This section of the questionnaire aimed at ascertaining the perceptions and myths pertaining to male infertility among

the study population. It discussed infertility as ground for divorce and remarriage. The perception about *in vitro* fertilization (IVF) was also discussed here. The questionnaire was collected and compiled for data analysis.

The data were tabulated in the Excel sheet and analyzed using a bar diagram and chart.

RESULTS

In the present study, a total of 200 participants were included in the study. The questionnaires were administered among men and women in the field practice area about male infertility. The questionnaire contained four major parts and each section had different questions. The sociodemographic characteristics of the study population including age distribution, occupation, and marital status are summarized in Figures 1-3, respectively.

Knowledge of Infertility

Most of the participants provided the reasons for infertility as both male and female (47.5%) followed by either male or female (27.5%), female alone (13%), and male alone (12%) and their detailed responses are depicted in Figure 4. Participants were

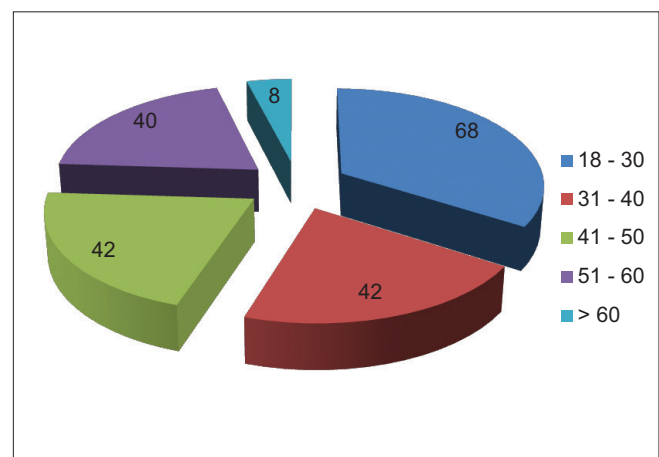


Figure 1: Age distribution of the participants (n = 200)

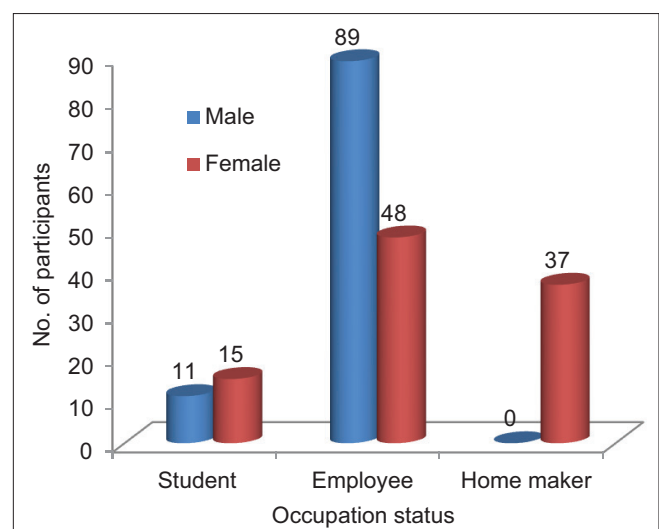
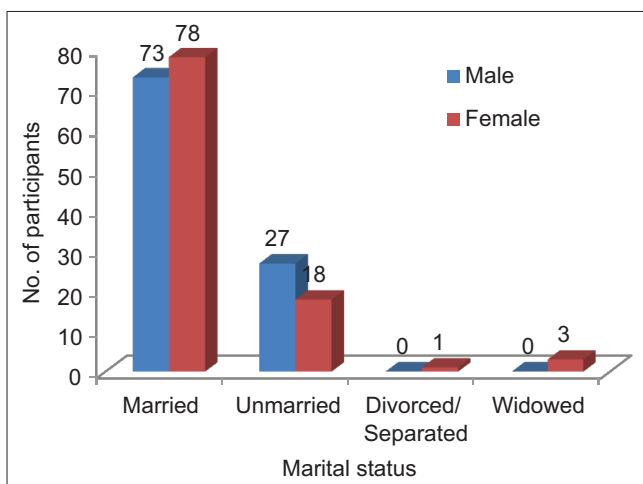
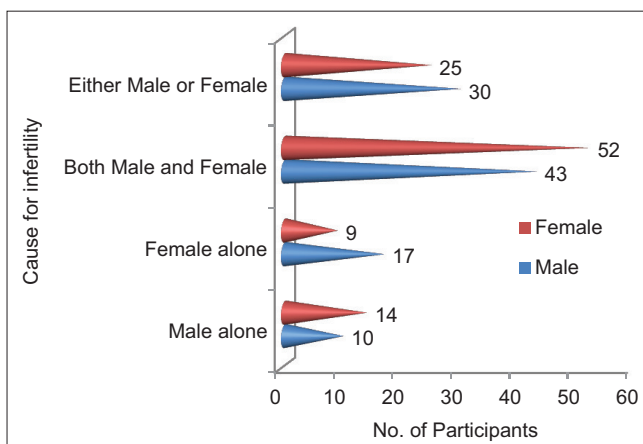


Figure 2: Occupation details of the participants (n = 200)

Table 1: Factor influencing infertility

Factors	Male (n=100)		Female (n=100)		Percentage of acceptance
	Yes	No	Yes	No	
Urinary tract infection	52	48	59	41	55.5
Alcohol consumption	73	27	86	14	79.5
Vigorous exercise	28	72	29	71	28.5
Previous use of condoms	14	86	19	81	16.5
Black magic	13	87	12	88	12.5
Djinn/supernatural causes	14	86	15	85	14.5
Psychological stress	70	30	64	36	67.0
Marriage at an advanced age	51	49	57	43	54.0
Endocrine problems	38	62	41	59	39.5
Diabetes mellitus	33	67	36	64	34.5
Obesity	39	61	51	49	45.0
Others	16	84	14	86	15.0

**Figure 3:** Marital status of the participants (n = 200)**Figure 4:** Prime cause for infertility (n = 200)

further probed to assess their knowledge about the factors leading to infertility and the details were tabulated [Table 1].

Attitudes toward Male Infertility

The attitude toward male infertility in various factors were interviewed thereby most of them (79%) did not consider

infertility as a disease. Majority of the population (89.5%) was also aware that infertility can be treated. Maximum participants responded to investigate first were both males and females (73%) and 80% told that allopathic system of medicines would be their prime treatment modality [Table 2].

While analyzing the perception and myths associated with the male infertility, nearly equal responses were obtained for divorcing the male partner, thereby 44% of the males and 47% of females suggested that the divorce is the only way to sort out this issue. However, maximum males will not accept the females to do remarriage after divorce (63%). Due to the media exposure, magazines, and social media, most of the participants knew about the IVF (79%); among them, knowledge among females is higher (52.5%). Most of them informed that IVF (51.5%) is better than adopting the child [Table 3].

DISCUSSION

This study aimed to assess knowledge, attitudes, and perception and myths of men and women in the field practice area of our college toward male infertility. The previous researchers found that the idea toward infertility was difficult to deal for men.^[4,8,9] However, what differentiates this study to others is that the knowledge and attitude of the public against male infertility and the findings which have emerged from them. The first part of the present study was assessing the knowledge regarding factors causing infertility.

The participants of the study were able to identify the common investigations needed for the infertility. Majority of the participants were under the impression that the prime causes for infertility were both the male and female partner. In contrary to the popular belief and previous researches conducted in various parts of the world, the present study had proved that the knowledge regarding infertility has improved a lot.^[3,11]

When the causes of infertility were discussed, the findings of the present study correlated to the studies conducted at various other parts of the world.^[4,12,13] Yet, the elderly population of the study had shown that only a few of them were aware of the endocrine problems and diabetes mellitus.

The present study concurs with the Iranian study that female had better knowledge regarding male factors causing infertility better than the male population.^[3,14] However, it differs

Table 2: Attitudes toward male fertility

Factors	Male		Female	
	Yes	No	Yes	No
Infertility – a disease?	22	78	20	80
Need medical treatment?	90	10	89	11
Do you think if a couple conceives once, they might have problems in conceiving again?	39	61	40	60
Whom do you think should investigate first?				
Husband	12		10	
Wife	15		17	
Both	73		73	
Whom in your mind should be sought for treating infertility?				
Allopathy	75		85	
AYUSH	21		33	
Astrologer	04		03	

Table 3: Perception and myths associated with male infertility

Factors	Male		Female	
	Yes	No	Yes	No
Is male infertility ground for divorce?	44	56	47	53
If the husband is infertile, do you think the wife can divorce him and remarry?	37	63	43	57
Do you know anything about IVF?	75	25	83	17
If yes, is it alright to conceive a baby through IVF?	52	48	69	31
Which is better?				
IVF	53		50	
Adoption	47		50	

IVF: *In vitro* fertilization

with the study conducted among the students of Grenada.^[15] This may be of the reason that the viewpoint and exposure of students compared with the adult population might differ.

The second part of the study focused on the attitudes toward male infertility. The present study concurs with the results of a similar study conducted in Pakistan, except that the participants of the present study exhibited better knowledge of male infertility as a disease than the other study.^[7] Except that the participants had better knowledge of infertility as a disease compared to the other study.

The third part of the study discusses about the perceptions and myths prevalent in the society regarding the male infertility. The studies conducted in other countries show less awareness regarding IVF.^[5,8] Furthermore, the percentage of population thinking that infertility can be considered as grounds for divorce has also reduced though not drastically. Although the taboo on adoption and IVF has reduced, it still shows that the education among population has to be augmented to improve the quality of life. The present study concludes that the knowledge of male infertility is generally on the increase among the participants. In fact, they were aware of the various causes of male infertility. The comprehension that supernatural powers are not the cause of infertility and the pattern of seeking treatment from faith healers has reduced. Their attitudes to approach treatment from

allopathy were satisfactory rather than approaching quacks and astrologers for solution. Though perception of infertility has improved, it still needs more exposure and education.

CONCLUSION

It is important that the society is aware of the fact that the infertility is not alone due to women but that men also contribute to the statistics. The recommendation to introduce aspects of IVF and adoption in basic education can be a solution for the childless couples. Adoption can also serve to reduce the burden of the government and non-governmental agencies in taking care of orphaned children. Information on foster system of family can also be introduced by the government to tackle issues of infertility. The true information would be revealed only if the families affected with infertility were considered as the study population. This study did not aim in educating the study population which would have served the society better.

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