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A STUDY TO ASSESS THE KNOWLEDGE OF INFERTILE COUPLES REGARDING INFERTILITY IN SELECTED HOSPITALS AT KOLLAM DISTRICT

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ABSTRACT

Background: Infertility is defined as a failure to conceive within one or more years of regular unprotected coitus. Most of the infertile couples are not having adequate knowledge regarding infertility and recent advancements in infertility management which is leading to the reduced acceptance of this treatment. **Aim:** The study is attempted to assess the knowledge regarding infertility among the infertile couples and compare the knowledge between male and female participants in selected hospitals of Kollam district. **Methods:** 100 infertile participants from the selected hospitals of Kollam district. A structured questionnaire was developed to assess the knowledge of infertile couples. **Results:** The findings revealed that the respondents had adequate knowledge regarding the meaning of infertility. But, they lacked knowledge in few aspects like causes, diagnosis, treatment and preventive measures for infertility. The knowledge of infertile couples was influenced by age, sex, education, income, screening and treatment. There was no relationship between knowledge of infertile couples on infertility and source of information, religion, and duration of infertility, reasons for infertility according to wife and reasons for infertility according to husband. Among the couples, females were having more knowledge on infertility when compared to males. **Conclusion**: This study shows that the knowledge of infertile couples regarding infertility, majority of the infertile couples had inadequate knowledge about infertility. Significant relationship was found between knowledge scores of infertile couples and their age, sex, education, income, screening and treatment. Insignificant relationship was found between knowledge and their source of health related information, religion, duration of infertility, reasons according to wife and reasons according to husband. Among the couples, knowledge of infertility was found more in infertile females when compared to infertile males. Researcher felt that there is a need for conducting such studies among this group frequently.

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INTRODUCTION:-

Today fertility and infertility have both emerged equally problematic in the world population context. Most fertile couples around 90% should get pregnancy within a year of regular intercourse. This rises to 95% over a two-year period. Fertility or the ability to produce children has a positive social value whereas; infertility has a negative social value in Indian culture. Family and society look down couple who is not able to bear children within a reasonable period of time following marriage. Another reason is that so much importance being attached to the social aspect of fertility behavior is that family name will not be carried forward without a child.

Need For the Study

Couples may delay seeking medical advice because of the fear of a final definite diagnosis, emotional stress, the physical discomfort of the tests they would have to undergo and admitting failure in their efforts to conceive. Irrespective of who the infertile person is, it is the woman who usually initiates the first contact with a physician. Couples with primary infertility are usually more interested in treatment than those with secondary infertility.

Globally, between 50-80 million couples have a variety of biological and behavioral determinants. It is estimated that about 8-12% of all couples experience some form of infertility during their reproductive lives. In a core of about 5% of couples, the causes of infertility are attributed to anatomical, genetic, endocrinological or immunological factors. The remaining 5-7% is the consequence of STD's or of complications suffered post-partum or post abortion.

Overall 7% of currently married women in India were childless, Southern (10.9%) and Western (10.7%) region shows highest percentage of childless women followed by Eastern region (6.5%). However, Central region exhibits lowest (4.7%) of childlessness. Andhra Pradesh shows highest percentage of childless women (13.3%) in India followed by Goa (11.8%). Urban areas have more percentage of childless women than their rural counterparts. Results reveal that age is negatively associated with childlessness.

Time management for infertile couples is important; not only to maximize chances of conceiving, but also to maximize the pleasure they get from parenting. Infertility has been recognized as an intrinsic part of family planning care. The recent concept of reproductive health seeks to provide family planning, maternal and child health & care of infertile couples together as a package. State health services are also expected to help childless couples to enjoy parenthood. This will enhance the faith of the people at large, in the government health services which are often identified with birth control activities. Many of the causes for infertility are rectifiable leading to a fruitful family. But, majority of the infertile couples are unaware of the reasons for infertility and the remedies available to overcome the problem. Hence, as a first step towards this, the researcher has planned to conduct a study to assess the knowledge of infertile couples regarding infertility in selected hospitals, Kollam.

Statement of the Problem

A study to assess the knowledge of infertile couples regarding infertility in selected hospitals at Kollam district.

Objectives

- To assess the knowledge of infertile couples regarding infertility.
- To compare the knowledge of infertile males and females on infertility.
- To analyze the relationship between the knowledge of infertile couples on Infertility and selected demographic factors.

Assumptions

- Infertile couple in the age group of 20-40 years would be willing to participate in the study.
- The tool prepared for the study would be sufficient for collecting information about their knowledge on infertility.
- Infertile couple in the age group of 20-40 years will have some knowledge regarding infertility.

The conceptual framework of the study is based on Pender's Health Promotion Model. According to Dr. Pender, Health Promotion Model seeks to increase an individual's level of wellbeing. It explains the relationship among the factors believed to influence health behavior changes.

Methodology

A descriptive method that is exploratory in nature was found to be the most suitable approach for attainment of the objectives of the study. Research design selected for the present study was descriptive co-relational design. The researcher tried to find the relationship between knowledge of infertile couples on infertility and selected variables. The present study was conducted in selected infertility hospitals at Kollam district. Purposive sampling technique was used in the present study to select the subjects, according to the purpose.

Sample size for the present study was 100 including 50 males and 50 females. A structured questionnaire was prepared by the researcher to collect the information about knowledge on infertility. The

reliability of the tool was elicited by using test-retest method; Karl Pearson's coefficient 'r' was computed for finding out the reliability. The 'r' for the items of questionnaire was 0.79. All the couples were receptive and co-operative during data collection.

Data analysis

All data were analyzed and interpret data by using descriptive and inferential statistics.

Among One hundred subjects including 50 females and 50 males were selected for the study. The data on age reveals that half of the respondents were in the age group of 31-35 years (51%), followed by 26-30 years (31%), 20-25 years (10%).Educational status reveals that equal number of respondents were graduatesandwith1to10thstandardeducation(28%ineach),P. U.C (21%), Post graduation (12%), very few (11%) knew to read write.Considering the source of information, about 45(45%) respondents received information regarding infertility from elders in the family, followed by health personnel (29%), friends (13%), newspapers (10%) and television (3%).Regarding monthly income, nearly 31(31%) respondents had the income of Rs.4001 to Rs.6000, followed by 26 (26%) in Rs. 6001 to Rs. 8000 income group, 23 (23%) in Rs.2001 to 4000. Equal numbers were getting less than 2000 and Rs.8001 to Rs.10000 (7% in each).

As far as the religion is concerned, majority of respondents were Hindus (46%), followed by Muslims (32%), Christians (20%) and 2(2%) respondents were others. Considering duration of infertility, majority of respondents (62%) were in the category of 4-6 years, followed by (20%) in 7-9 years, (14%) in 1-3 years category. The data on screening reveals that, majority of respondents (52%) were seeking medical advice and (48%) were not seeking any medical advice.

Among 50 respondents, male and female factors were expressed by husbands as equally responsible for infertility (40% in each) and unexplained were 20%.Regarding reasons for infertility according to wife, 20(40%) answered that male factors were responsible followed by female factors (38%) and unexplained infertility (22%).With regard to reasons for infertility according to husband, equal number of respondents answered that female and male factor were responsible for infertility (40% in each). Ten respondents (20%) answered the cause to be unexplained. The data on treatment option reveals that, majority of respondents were not seeking any treatment (32%), 29(29%) were taking hormonal therapy, 16(16%) were interested in adoption, 15(15%) were taking drug therapy.

Knowledge of infertile couples regarding infertility

- All the infertile couples responded correctly to the meaning of infertility (100%); half of the respondents (52%) had correct opinion about primary infertility and secondary infertility (35%) and 34 respondents (34%) knew about the meaning of unexplained infertility.
- Majority of the respondents (79%) knew correctly about female reproductive organs; male reproductive organs (74%); meaning and occurrence of ovulation (47%); number of times ovulation occurs in a month (50%); time of release of sperms (63%); number of sperms released during each sexual act (36%) and 42 respondents (42%) knew that ejaculation is the release of semen frompenis.
- Nearly half of the respondents (48%) knew the correct answer for fertilization; fertilization takes place in fallopian tubes (59%); meaning of embryo (44%); when the couple should participate in sex to become pregnant (47%); conditions favorable for pregnancy (59%).
- Majority of respondents (75%) answered correctly that both male and female are responsible for infertility; causes for female infertility(51%); causes for male infertility (52%); causes for female secondary infertility (53%); causes for male secondary infertility (45%).
- Half of the respondents (51%) answered correctly that a couple should seek doctors' advice, if pregnancy does not occur even after one year of sexual life; common tests done for male infertility (40%); common tests done for female infertility (34%).
- Thirty–seven respondents (37%) answered correctly the common feelings of infertile couples; treatment for male infertility (42%); treatment for female infertility (35%); meaning of artificial insemination (5%); meaning for invitro–fertilization (36%); time for successful invitro–fertilization (13%); meaning of surrogacy (14%); procedure for donating sperms and ovum (32%). Only 32 respondents (32%) had the correct knowledge on measures to be followed to increase a man's sperm count le infertility (52%).Nearly half of the respondents preferred for adopting any child (43%).

The mean value for knowledge on infertility in infertile males was lower (−x =18.42, S.D=4.96) when compared to mean value for infertile females (−x =18.66, S.D=2.41). The obtained 't' value was 6.75, which was considered to be significant at 1% level. This indicated that there was a significant difference in the knowledge regarding infertility between infertile males and females.

Relationship of the knowledge of infertile couples on infertility with selected variables

The chi-square values computed for knowledge score and age (χ^2 =16.3), sex (χ^2=6.99), education (χ^2 =53.63), income (χ^2 =49.69), screening (χ^2 =37.75), treatment (χ^2 = 19.75) were found to be statistically highly significant at 5% level, which indicated that there was a significant relationship between knowledge of infertile couples on infertility and their age, sex, education, income, screening and treatment.

Table : 1 1Frequency and Percentage Distribution of Infertile Couples by sample characteristics

N=100

Sample characteristics	f	%
Age in Years:		
20 –25 Years	10	10
26-30 years	31	31
31-35 years	51	51
36-40 years	8	8
Sex:		
Male	50	50
Female	50	50
Education:		
Knows to read and write	11	11
1st to 10th Standard	28	28
PUC	21	21
Graduation	28	28
Post Graduation and above	12	12
Source of information:		
Newspapers	10	10
Health Personnel	29	29
Elders in the family	45	45
Friends	13	13
Television	3	3
Income:		
Less than Rs.2000/- per month	7	7
Rs.2001 – 4000/- per month	23	23
Rs.4001 – 6000/- per month	31	31
Rs.6001 - 8000/- per month	26	26
Rs.8001 – 10000/- per month	7	7
More than Rs.10000/- per month	6	6
Religion:		
Hindus	46	46
Muslims	32	32
Christians	20	20
Any other	2	2
Duration of infertility: 1 – 3 years	14	14
4 – 6 years	62	62
7 – 9 years	20	20
10 - 12 years	2	2
Above 12 Years	2	2

Screening: Seeking medical advise	52	52
Not seeking medical advise	48	48

Table 2: Frequency and Percentage Distribution of Infertile Couples by their clinical characteristics

N=50

Sample characteristics	Total	
Reasons for infertility according to wife:	F	%
Female factors	19	38
Male factors	20	40
Unexplained	11	22
Reasons for infertility according to husband:		
Female factors	20	40
Male factors	20	40
Unexplained	10	20
Treatment option		
Drug therapy	16.89	71.4
Hormonal therapy	17.82	4.31
Invitro-fertilization	27.80	6.89
Surrogacy	-	-
Adoption	18.75	6.45
No treatment	16.61	3.17

Table: 3 Comparison of Knowledge on Infertility between Infertile Males and Female

Knowledge on Infertility	Mean	S.D	't' value (Paired)
Male	18.42	4.96	6.75**
Female	18.66	5.41	

Discussion

The reason for high percentage of the couples in the age group of 31-35 years might be due to the reasons such as late marriages, decision to postpone child bearing. This also shows that a couple's fertility behavior declines after 30 years of age also might be due to the fact that the sample from selected areas for the study. Education level of the respondents is one of the important variable in the study influencing the behavior of the individual. The knowledge acquired will have tremendous effect on their health behavior. Usually, elders in the family educate their youngsters regarding customs, traditions, ideals, values etc. They have the most profound influence over the youngsters. It is clearly evident from the findings that the respondents had intimate relationship with the elders in the family and acquired the knowledge on infertility

The standard of living and quality of life depends on the economic power. Income of the family is an important factor in seeking the health care. The findings of the study suggest that majority of respondents had income of less than Rs. 6000, which is not sufficient for their infertility treatment. The reason for this might be due to least employment opportunities in backward areas.

This might be due to the fact that Kollam town predominantly consists of Hindus. Religion plays a vital role in dictating the way of living. In today's generation both husband and wife want to first establish their career, build assets for themselves and then start a family. It is evident from the findings that the respondents might have taken the decision to post- pone child bearing for more than 3 years.One of the major factors influencing health status is education. It is evident from the above findings that, the respondents who were with minimum education and less income did not prefer to seek any medical advice.

By this, it is inferred that infertility was no longer seen as a women's burden alone. This is suggesting that infertility treatment should focus on the couple as a team. The reason could be attributed to the fact that, less income and lower education leads to poor awareness of treatment facilities available for infertility. As the education level and economic power increases, the understanding capacity of the subjects also increases. They learn new things and acquire new knowledge in variety of areas, which will have tremendous effect on their health behavior.

Conclusion

Public health policy makers must find ways to improve the general public and infertile couples understanding about fertility treatment outcomes. The health care systems should see that the infertile couples from lower social classes are offered proper information on possibility of infertility treatments. So, information module on infertility could be prepared by nurses and distributed to the infertile couples, which will be helpful for them to improve their knowledge.

Limitation

1. The size of the sample was small to draw generalizations.
2. Only those who could read and write Malayalam or English were included in the study.
3. The study was limited to those infertile couples residing only at Kollam district.

Implications

1. **Implications of the present study in the nursing services**

   Nurses are in the best position to give information regarding various aspects of infertility, as the infertile couple will be free to reveal their problems to nurses. Since, the present study showed that almost all the couples had inadequate knowledge on infertility; nurses in changing era have to prepare themselves to provide care and give appropriate information to the couples. There is a greater demand for getting the resources extracted from infertile couples, by the nurses in the form of knowledge. Realizing the health care needs of people, nurses must incorporate scientific based knowledge.

2. **Implications of present study in nursing administration**

   Nurses have to play a multidimentional role and their skills have to be combined with a specialized knowledge base to ensure improved health status of the infertile couples. The nurses could participate in public awareness programmes through mass media and administration should take initiative to organize educational programmes for health personnel regarding various aspects of infertility. Nurses, in turn could improve the knowledge of infertile couples for a good prognosis in future.

3. **Implications of the present study in nursing education**

   The findings of the study indicated that more emphasis should be placed in the nursing curriculum on infertility. Periodic infertility awareness programmes should be arranged for nursing students which would be a great help for promoting themselves as well as other who are in need.

4. **Implications of the present study in the nursing research**

   The study will be a motivation to beginning researchers to conduct similar studies on a large scale. The findings of the study serve as a basis for the professional and the student nurses to conduct further studies on infertility. In depth study on counselling for infertile couples, prevention and treatment of infertility in low resource settings could be conducted.

Recommendations

1. A similar study could be taken up with a large sample for assessing the knowledge of infertile couples on infertility for making a more validgeneralization.
2. A comparative study could be conducted to assess the psychosocial problems between infertile males andfemales.
3. A comparative study could be conducted to assess the incidence of treatment seeking behavior of infertile couples in government and private infertileclinics.
4. A study could be done to develop the health education packages on infertility and evaluate itseffectiveness.
5. A comparative study could be conducted to assess the knowledge, attitude and practices of men and women towards infertility with different demographiccharacteristics.
6. A study could be conducted to assess the effectiveness of complementary therapies among infertile couple in selected community settings.

Confidentiality of Data

The feedback forms obtained from infertility couples were kept confidentially. Only the principal investigat or has the access to these documents.

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Conflict of Interest: None

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