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A Study to Assess the Effectiveness of Information Booklet Regarding Infertility Among Infertile Women

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***Abstract*: The present study entitled to assess the effectiveness of information booklet regarding infertility on knowledge among infertile women at selected hospitals Durg (C.G)". A pre-experimental research design is utilized to achieve the stated. Objective: 1. To assess the pretest and post test level of knowledge regarding infertility among infertile women. 2. To assess the effectiveness of information booklet regarding infertility among infertile women. 3. To find out association between pretest level of knowledge regarding infertility among infertile women with their selected socio demographic variables. Hypothesis: 1. H1: There will be a significant difference between pre test & post test level of knowledge regarding infertility among infertile women. 2. H2: There will be a significant association between pre test levels of knowledge regarding infertility among infertile women with their selected socio demographic variables. Projected Outcome/Hypothesis: The present pre-experimental study is used to accomplish the objective of the study. The study was based on the conceptual framework is modified Nola Pender's Health Promotion Model. An extensive review of literature was done and organized under various aspects related to infertility. The research approach was an experimental study and the research design was a one group pre-test, post test research design, convenient sampling technique applied was data collection. Quantitative research approach is used and Pilot study was conducted to confirm the feasibility of the study. For the main study 60 infertile women were selected through convenient sampling techniques.**

***Keywords*: infertility, infertile women, information booklet, knowledge, hospitals.**

1. Introduction

Infertility is growing public health problem in India. Due to infertility couples face lots of discrepancies in socio religious activities and may also developmental health issues in couples. Infertility is defined as not being able to get pregnant despite having frequent unprotected sexual intercourse for at least one year without using birth control methods. Infertility may be a result from an issue with either female partner or male partner or a combination of factors which prevent pregnancy.

Motherhood is a great gift of God; fertility is highly respected in most culture and the wish for a child is one of the most basic of all human motivation. Pregnancy and motherhood is emphasized by our culture.

According to the World Health Organization (WHO), is the inability to conceive after one year of natural, unprotected sexual intercourse Infertility is an emergent issue in India. According to World Health Organization study of 5,800 infertile couples in 22 developed and developing countries found that men were either the sole cause or a contributing factor to infertility in more than half of the couples. Further it was found that in only 12.8 % of cases infertility was solely due to the female with no demonstrate cause in the male. (WHO 2016). Currently, in the United States, about 20% of couples struggle with infertility at any given time. Infertility has increased as a problem over the last 30 years. Infertility in married women ages 16-20 in 4.5%. Infertility in married women ages 35-40 in 31.8%. Infertility in married women over the age of 40 in 70%. (United States-2018). Infertility affects both men & women of reproductive age in all parts of the world. In some regions infertility is found to be spread & its prevalence reaching such proportions that it can be considered a public health problem affecting the whole society. Recently published studies revealed that infertility affects about one in six couples during lifetime & is more frequent in obese. On the other hand, mood disorders may exacerbate the hormonal disturbances & worsen the effectiveness of infertility management. Infertility has become one of the global public health problems, where couple is unable to bear a child, they are not able to conceive and remain childless For women under the age of 35years infertility is defined as inability to conceive a child after 1year of unprotected sexual intercourse. For women aged 35 to 40 years it is defined as inability to conceive after 6months of unprotected sexual intercourse.

For women above 40years of age it is defined as inability to conceive after 3months of sexual intercourse. Infertility is also an inability to carry a pregnancy to term, such as in cases of recurrent pregnancy loss. There are two types of infertility primary infertility and secondary infertility, primary infertility refers to couples who have not become pregnant after atleast 1year having sexual intercourse without using any birth control method. While secondary infertility refers to couples who have been able to get pregnant atleast once, but unable to conceives on time. According to WHO the prevalence of primary and secondary infertility is 3% and 8% respectively. A study

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conducted in Asian institute of infertility management and Shefali Jain test tube baby Centre among1000 cases it was experienced that maximum infertility is due to female factors which is 30.2%, cause of infertility in females was observed due to ovulation problem and most of the cases were from the females falling in age group of 35yrs to 40yrs.While male factors in infertility contributes 19.5% which is less than females, causes of infertility was observed in males due to absence of sperms in semen, low count of sperm, motility problem most of the cases were from males falling in the age group of 35yrs to 40yrs. But majority of 37% cases was observed with unexplained causes.

On the other part if we analyze the male problem regarding the low fertility it has been studied in the systematic review article on dietary patterns, food and nutrients in male fertility parameters and fecundability by Albert Salas-Huetos that male fertility is affected by consumption of smoking and alcohol, increased use of gadgets like mobiles ,laptops ,environmental chemicals and it is also found that some dietary patterns also affects the male fertility like diets rich in processed meat, soy foods, potatoes, full fat dairy products, cheese, Sugar sweetened beverages and sweets has harmful effects associated with quality of semen.

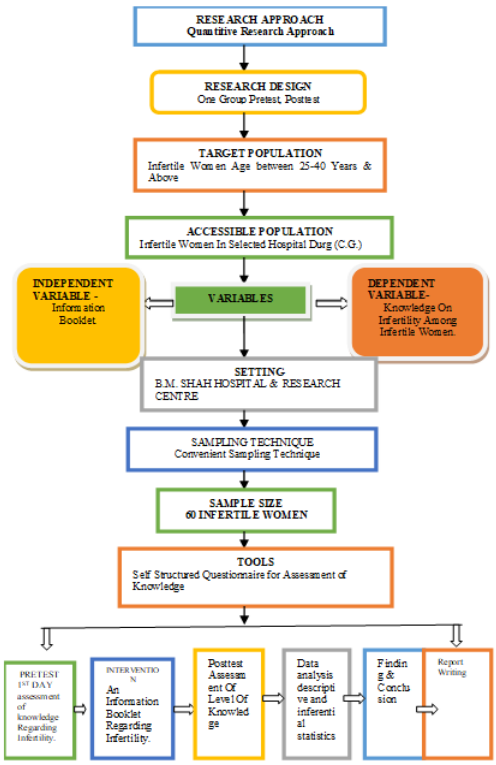

Fig. 1. Schematic representation of research design

2. Result and Discussion

A. *Presentation of Data Analysis*

The data was organized under following section

- *Section A:* Description of Part-I socio demographic variables and Part-II general knowledge on infertility frequency and percentage.
- *Section B:* Frequency and percentage wise analysis of Pretest level of knowledge score regarding infertility among infertile women.
- *Section C:* Frequency and percentage wise analysis of posttest level of knowledge score regarding infertility among infertile women
- *Section D:* Evaluate the effectiveness of an information booklet regarding infertility among infertile women.
- Section E: Association between the pretest knowledge score with their selected socio demographic variable in frequency and percentage.

1) Section-A

PART-I socio demographic variables and part -II general knowledge on infertility frequency and percentage.

Frequency and Percentage Distribution of Subjects According to Socio Demographic Variable

Distribution of subjects according to Age

- It depicts that maximum women 24 (40%) belongs to age group 25-30years, 16(26.67%) belongs to age group 31-35years, 16(26.67%) belongs to age group 36-40years and 4(6.67%) belongs to age group above 40 years.

Distribution of subjects according to Religion

- It shows majority of subjects 44(73.33%) were Hindu, 8 (13.33%) were Christian, 6(10) were Muslim and2 (3.33%) were others.

Distribution of subjects according to Education Status

- It shows majority of subjects 34(56.67%) were graduate, 14 (23.33%) were no formal education, 8(13.33%) were 12th pass and 4 (6.67%) were post graduate.

Distribution of subjects according to Occupation

- It shows majority of subjects 40(66.67%) were home maker, (23.33%) were self employed, 8(13.33%) were private job and 4 (6.67%) were post graduate

Distribution of subjects according to Family Income

- It shows majority of subjects 26(43.33%) were above Rs.40, 000, 18 (30%) were Rs. 30,001-40,000 14(23.33%) were Rs.20, 001-30,000 and 2 (3.33%) were Rs. 10,000-20,000.

Distribution of subjects according to locality

- It shows majority of subjects 48(80%) were living in urban, 12 (20%) were living in rural.

Distribution of subjects according to Previous Knowledge

- It shows majority of subjects 42(70%) were having previous knowledge, 18 (30%) were having no previous knowledge.

Distribution of subjects according to Source of Knowledge

- It shows majority of subjects 28 (46.67%) getting information from friends & relatives, 14 (23.33%) getting information from health magazines.

Distribution of subjects according to Age of Menarche

- It shows majority of subjects 48 (80%) were belongs to age group 10-12years, 10 (16.67%) were belongs to age group 13-15 years & 2(3.33%) were belongs to age group above 16 years.

Distribution of subjects according to Menstrual Cycle

- It shows the subjects are equally had regular & irregular menstrual cycle.

Distribution of subjects according to Age at Marriage

- It shows majority of subjects 44 (73.33%) were belongs to age group 18-22years, 14 (23.33%) were belongs to age group 23-27 years & 2(3.33%) were belongs to age group above 33 years.

Distribution of subjects according to Duration of Marriage

- It shows majority of subjects 28 (46.67%) were belongs to duration of 2-4years, 16 (26.67%) were belongs to duration of 8-10 years & 14 (23.33%) were belongs to duration of above 5-7 years & 2(3.33%) were belongs to duration of above 11 years.

Distribution of subjects according to how often have they engaged in sexual activity (intercourse)

- It shows majority of subjects 34 (56.67%) were engaged in sexual activity twice a week, 18 (30%) were engaged in sexual activity thrice a week, 8 (13.33%) were engaged in sexual activity every alternate days.

Distribution of subjects according to Sexual Dysfunction

- It shows majority of subjects 48 (80%) were had no sexual dysfunction, 8 (13.33%) were had pain during sexual intercourse, 4 (6.67%) were had low sex desire.

Distribution of subjects according to Birth Control Method

- It shows majority of subjects 52(86.67%) were not used any birth control methods, 8 (13.33%) were used birth control methods.

Distribution of subjects according to Infection of Reproductive Parts

- It shows subject 2(3.33%) had pelvic inflammatory disease &2(3.33%) had endometriosis and 2(6.67%) had urinary tract infection

Distribution of subjects according to Disease Associated with Infertility

- It shows majority of subjects 8 (13.33%) were had PCOD, 6 (10%) were had PCOS 6(10%) were had Thyroid, 4(6.67%) were had obesity.

Distribution of subjects according to BMI

- It shows majority of subjects 48 (80%) were obese, 12 (20%) were overweight.

Distribution of subjects according to Health Maintenance

- It shows majority of subjects 38 (63.33%) were not having any habit for health maintenance, 18 (30%) does walking, 4(6.67%) do yoga.

B. Section-B

Section B: Frequency and percentage wise analysis of Pretest level of knowledge score regarding infertility among infertile women.

Objective 1: To assess the pretest level of knowledge regarding infertility among infertile women

Shows level of knowledge score regarding infertility among infertile women, in pre test 40 (66.67%) had poor knowledge score, 20(33.3%) had average knowledge score, 0(0%) had good knowledge score.

C. Section-C

Section C: Frequency and percentage wise analysis of posttest level of knowledge score regarding infertility among infertile women.

Objective 2: To assess the post test level of knowledge regarding infertility among infertile women

Shows level of knowledge score regarding infertility among infertile women, in posttest 0 (0%) had poor knowledge score, 12(20%) had average knowledge score, 48(80%) had good knowledge score

D. Section-D

Section D: Evaluate the effectiveness of an information booklet regarding infertility among infertile women

Objective 3: To assess the effectiveness of information booklet regarding infertility among infertile women

The pre-test and post test knowledge score knowledge regarding infertility among infertile women. In pretest out of 60 subjects 40 (66.67%), 20(33.33%) and 0(0%) were having poor, average and good score. Whereas in post-test 12 (20%) and 48(80%) were having average and good knowledge score. In posttest, no sample was reported in poor knowledge.

Chi-square test analysis shows a highly significant ($p<0.001$) difference in the distribution of pretest and posttest samples according to the knowledge level. This shows informational booklet was very effective.

E. Section- E

Section E: Association between the pretest knowledge score with their selected socio demographic variable in frequency and percentage.

Objective 4: To find out association between pretest level of knowledge regarding infertility among infertile women with their selected socio demographic variables.

Show association between post-test level of knowledge regarding infertility among infertile women with their selected sociodemographic variables using a chi-square test ($\chi 2$) demographic variable “age”, “menstrual cycle”, “birth control methods” and “previous knowledge” was significantly associated with the pre-test knowledge level regarding infertility among infertile women.

Hence H1 i.e., there is a significant association between pretest knowledge level regarding infertility among infertile women and socio demographic variable “age”, “menstrual cycle”, “birth control methods” and “previous knowledge” is accepted.

Hence H2 i.e. Association between pretest knowledge level and other selected Sociodemographic variables such as religion, education, occupation, family income, locality, previous knowledge, source of knowledge, age of menarche, age at marriage, duration of marriage, sexual activity, sexual dysfunction, infection, diseases, BMI, habits of health maintenance were found to be statistically non-significant.

3. Main Findings

Chi-square test analysis shows a highly significant ($p<0.001$) difference in the distribution of pretest and posttest samples according to the knowledge level. This shows information booklet was very effective.

Parametric Paired t test has been used to test the significance of the observed difference in pre-test and post-test mean knowledge scores. On applying the test highly significant difference ($P<0.001$) was found in the mean area-wise knowledge regarding infertility among infertile women. This shows information booklet was highly effective in enhancing knowledge.

Hence H1 i.e., there is a significant association between pretest knowledge level regarding infertility among infertile women and socio demographic variable "age", "menstrual cycle", "birth control methods" and "previous knowledge" is accepted.

4. Conclusion

On the basis of the finding of the study, the following conclusions were drawn;

- An information booklet was effectiveness in increasing the knowledge of infertility among infertile women.
- There is significant association between pretest and post test knowledge score with their selected socio demographic variable.
- The finding indicates that the information booklet on knowledge regarding infertility among infertile women was effectiveness method finding.

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