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Research Article

"A study to assess the effectiveness of planned teaching regarding infertility on knowledge among men from selected rural areas of Sangli District".

Sachin. S. Sakate [1], Basavant Dhudum [2]

1. M.Sc Nursing (Medical Surgical Nursing), Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414. Email ID: sakatesachin2012@gmail.com
2. Assistant Professor, Bharati Vidyapeeth (Deemed to be University), College of Nursing, Sangli, Maharashtra, India 416414. Email ID: bdhudum@gmail.com

bdhudum@gmail.com

ABSTRACT -

"A study to assess the effectiveness of planned teaching regarding infertility on knowledge among men from selected rural areas of Sangli District".

OBJECTIVES OF THE STUDY-

1. To assess the existing knowledge of men regarding infertility.
2. To assess the knowledge of men after planned teaching regarding infertility.
3. To compare pre-test knowledge scores with post-test knowledge scores.
4. To find out the association between the pretest knowledge scores and demographic variables.

ASSUMPTION-

- Men may have some knowledge regarding infertility and its management.

HYPOTHESIS OF THE STUDY-

- **Ho -** There is no difference in the knowledge regarding infertility after planned teaching among men at 0.05 level of significance.
- **H_1 -** There is difference in the knowledge regarding infertility after planned teaching among men at 0.05 level of significance.

RESULT -

It was found that in pre-test the majority of the i.e.,65.83 % of participants had average knowledge score and 32.50 % participants had poor knowledge score and only 2% had good knowledge score regarding infertility among men residing in rural areas of Sangli District.
Majority of the participants 76.67 % had average knowledge score and 23.33 % participants had good knowledge score after planned teaching. This showed that, men's knowledge was increased after the

administration of planned teaching regarding infertility. Therefore, the finding concluded that, the null hypothesis H_0 was rejected and research hypothesis H_1 was accepted.
The findings on the mean and SD score among men's level of knowledge score before the planned teaching (Mean=9.93, SD=2.67) and post –test knowledge score is (Mean=14.58, SD=2.83) respectively and the result was found to be statistical highly significant and calculated 't 'value is 57.11 which is more than table value and is significant at the level of 0.05. Therefore, the researcher concluded that hypothesis Null that means H_0 was rejected and researchable hypothesis $H_1$was accepted. The mean value of post-test knowledge score was higher than the mean value of pre-test among men so, it indicates that, planned teaching was more effective in increasing the knowledge regarding infertility.

CONCLUSION-

The study findings further concluded with promotion for the scientific knowledge regarding infertility. It requires hard efforts to make the men aware about the infertility and their issues. The interpretation was drawn by the researcher was that men are not getting the proper information on the infertility condition as there was lack of accessible resources leading to lack of knowledge and scientific information on what are various causes of infertility and specially in men than in female because science ancient era females are held responsible for the infertility but we as health care professionals and eradicate these myths by imparting the correct information through proper channel.

KEYWORDS -

Assess, Effectiveness, Planned Teaching, Infertility, Knowledge,Men

INTRODUCTION -

"Every men and women out there those want to be a father and a mother and is suffering with fertility problem will discover all the options and know that if you prefer the science route, it is okay".[1] Infertility means not being able to become expectant father and mother after a year of trying. If a woman can get pregnant but keeps having abortions or stillbirths, that's also known as infertility. Fertility problem is fairly common. After one year of having unprotected sexual intercourse, about fifteen percentages of couples are incapable to get pregnant. With reference to a third of the time; sterility can be traced to the women. In an additional third of cases, it is since of the man. The rest of the time, it is because of both partners or no cause can be institute.[2]

Recent (2014) statistics report that sterility affects ten to fifteen percentages of couples. This makes it one among the most important vulnerable conditions for group between the ages of twenty and forty-five. Additionally, the longer a woman tries to get pregnant without conceiving, the lower are her likelihood to get pregnant without medical management. Most couple's means around 85% with normal fertility will conceive within a year of trying. If a couple doesn't conceive in the first year, their chance of conceiving gets lesser each month. This happens more rapidly as the woman gets older.[3]

Centers for Disease Control and Prevention (CDC) official statement detailed that around twelve percentage of all youngsters of reproductive age –men and women in the United States trying to conceive. Other estimates recommend that the facts are even higher.[4]

According to WHO (2020) statistics report on global public health issue onthe Fertility problems affect a large proportion of society. WHO has revealed that, over ten percent of females who have

tried ineffectively, and have remained in a continue in relations for five or more years. Approximately, in females using a two-year time frame, prevalence rate of this consequence is 2.5 times higher. But the burden in male is not yet explored. The overall burden of sterility problem is very significant, likely underestimated, and has not explored any awareness strategies to decrease over the last 20 years.[5]

Universally, around 186 million people projected to affect as sterility problem. Even though male infertility contributes to more than half of all cases of global childlessness, infertility remains a woman's social burden. Unfortunately, large geographical areas of the world with the highest rates of infertility are often those with poor access to advanced assisted reproductive techniques (ARTs). In such areas, women may be abandoned to their childless destinies.[6]

Infertility affects around 60-80 million couples around the world and is still increasing. A demographic study in 2002 by the World Health Organization (WHO) on developing nations (except China) indicated that 186 million females have been infertile. The prevalence of current infertility in developed and less developed countries, based on a systematic review, was between 3.5-16.7% and 6.9-9.3% respectively. Infertility is not only a health problem but also a societal and sensitive problem, especially in some cultures and sometimes it leads to divorce.[7]

Documentation of the problem of infertility in each nation has a critical part in evidence-based decision making, however to achieve these goals the accurate calculation of primary infertility rate is significantly important. Deficiency of access to a universal definition for primary infertility and exact methodology to determine infertile females and the population visible to the risk of fertility have a great effect on social issue and treatment.

MATERIALS AND METHODS –

Quasi- experimental one group-pre-test-post-test-design was used and having independent was planned teaching while dependent variable was knowledge. The study was conducted at rural areas of Sangli district Asad, Shirte and Karve and population was men living in rural areas of Sangli district, sample was men living in selected rural areas of Sangli district.Men those were willing to participate in the study age group of 21-35 years and can read, understand and writeMarathi, Hindi / English language were included in the study where as men those who are already on infertility treatment, divorced and widower were excluded from the study.

Mixed method sampling technique using multiphase approach was used to select samples.120 men's were selected for the study.

Study statement was approved by the institutional ethical committee of BVDUCON**,** Sangli **(ref. N0. BVDU/CON/SAN/263/2020-2021 dated 08/06/2020).** The prior permission from concerned authority wasobtained. Informed written consent was taken from participants.

Data collection tool and technique was prepared after intensive reviews from the published and unpublished study material and brief discussion with respective guide in preparation of planned teaching. Opinions of experts were sought to ascertain the clarity and appropriateness of the items. The tool was having two parts demographic variables and 24 Structured knowledge questionnaires,each question had four options and responses were scored as 1 for correct response and 0-score for incorrect response.Categorized the scores of each question into three level of

knowledgePoor knowledge- a score of (0-8) - <50%,Average knowledge- a score of (9-16) - 50-75%,Good knowledge - a score of (17-24) - 76-100% and the total score was 24.

RESULTS -

The study results are discussed according to objectives of the study.

Table No. 1.

Frequency and percentage distribution of men according to demographic variables of the partcipants n=120

Demographic Variables	Frequency *(f)*	Percentage *(%)*
1. Age in years		
21-25	49	40.83
26-35	**71**	**59.17**
2. Education		
Upto Secondary	**37**	**30.83**
Higher Secondary	32	26.67
Under-Graduate	13	10.83
Graduate	29	24.17
Postgraduate	9	7.50
3. Occupation		
Farmer	**60**	**50.00**
Labour	9	7.50
Service	13	10.83
Business	7	5.83
Unemployed	31	25.83
4. Marital Status		
Married	**60**	**50.00**
Unmarried	**60**	**50.00**

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Demographic Variables	Frequency *(f)*	Percentage *(%)*
5. Received information		
No	**103**	**85.83**
Yes	17	14.17

The data represented in table no.1 indicates that, the overall analysis of the demographic characteristics was carried out to find the frequency and percentage of 120 participants in each category of the demographic variables.

The maximum participant's (59.17%) are belong to 26-35 years of age, 30.83 % of samples are up to secondary and 50% of samples belong to Farmer. Around 50% of samples are married and 50% of samples are unmarried. 85.83% of participants are not received any information regarding infertility, and only 14.17 percent of participants received information.

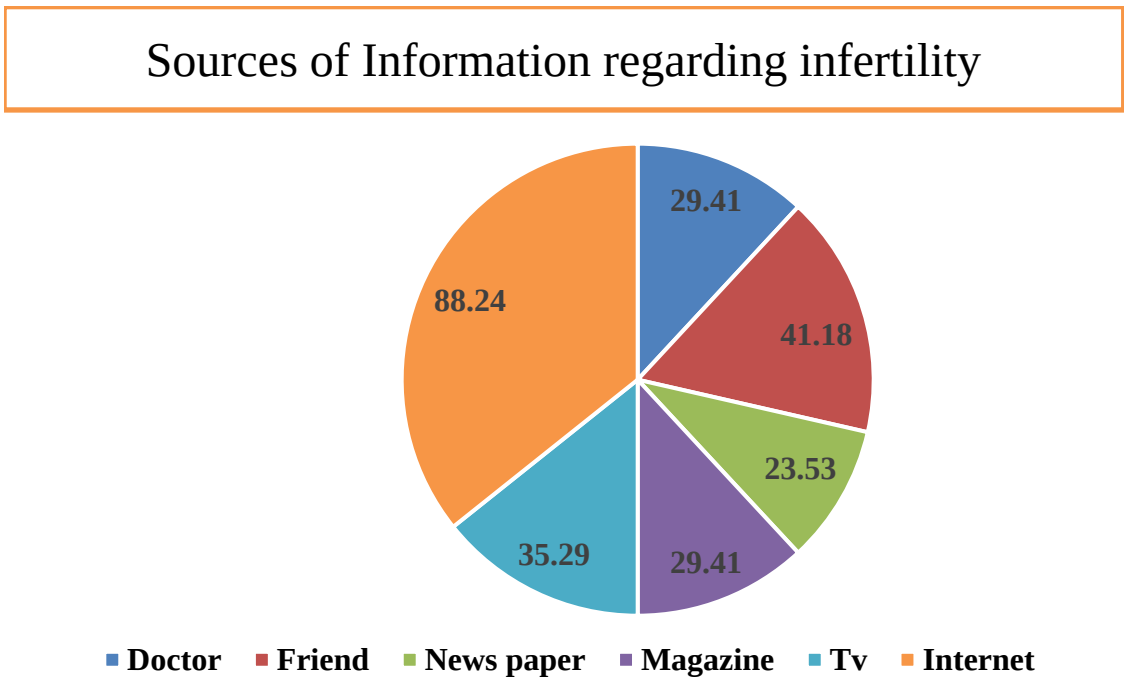

Figure No.1

The above Pie diagram no.1 shows that, majority 88.24% of the participant's received information from internet as the information sources regarding infertility.

Table no. 2

Frequency and percentage distribution of level of knowledge in pre-test among men regarding infertility **n=120**

Level of Knowledge	PRE- TEST	
	Frequency *(f)*	**Percentage *(%)***
POOR (0-9)	39	32.50
AVERAGE (10-17)	**79**	**65.83**
GOOD (18 - 24)	2	1.67

Table no .2 shows that in pre-test the majority of the i.e.,65.83 % of participants had average knowledge score and 32.50 % participants had poor knowledge score and only 2% had good knowledge score regarding infertility among men residing in rural areas of Sangli District.

Table no.3

Frequency and percentage distribution of level of knowledge in post-test scores of men regarding infertility **n=120**

Level of Knowledge	POST TEST	
	Frequency *(f)*	**Percentage *(%)***
POOR (0-9)	0	0.00
AVERAGE (10-17)	**92**	**76.67**
GOOD (18 –24)	28	23.33

Table no .3 shows that majority of the participants 76.67 % had average knowledge score and 23.33 % participants had good knowledge score after planned teaching.

This showed that, men's knowledge was increased after the administration of planned teaching regarding infertility. Therefore, the finding concluded that, the null hypothesis H_0 was rejected and research hypothesis H_1 was accepted.

Table No.4

Comparison between pre-test and post-test knowledge score regarding infertility among men **n=120**

KNOWLEDGE	MEAN	S.D.		t-VALUE	P- VALUE
PRE-TEST SCORE	9.83	2.68		57.12	0.00001

POST-TEST SCORE	14.57	2.84			

Table no.4Depicts the findings on the mean and SD score among men's level of knowledge score before the planned teaching (Mean=9.93, SD=2.67) and post –test knowledge score is (Mean=14.58, SD=2.83) respectively and the result was found to be statistical highly significant and calculated 't 'value is 57.11 which is more than table value and is significant at the level of 0.05. Therefore, the researcher concluded that hypothesis Null that means H_0 was rejected and researchable hypothesis $H_1$was accepted.

The mean value of post-test knowledge score was higher than the mean value of pre-test among men so, it indicates that, planned teaching was more effective in increasing the knowledge regarding infertility.

Table no.5

Association of pretest knowledge scores and demographic variables

n=120

Sr. no.	Variables	Chi square value	p value	Significance
1	Age	3.02	0.22091	No significant association
2	Education	47.32	0.00001	**significant association**
3	Occupation	23.74	0.002533	**significant association**
4	Marital status	2.24	0.32628	No significant association
5	Previous information	20.06	0.000045	**significant association**

Table no.5. Shows that there is significant association of pre-test knowledge scores of men with education (chi-square-47.32), occupation (23.74) and previous information (20.06) with but there is no significant association among age (3.02), marital status (2.24) with pre-test knowledge scores.

It means, in the present study it was proved that there was association between the pre-test knowledge score as evidence by the knowledge is dependent on education, occupation and previous information. But there is no association between the pre-test knowledge score with age and marital status as evidenced by the knowledge is not dependent on age and marital status.

DISCUSSION -

DISCUSSION WITH SUPPORTIVE LITERATURE:

The present study was intended to assess the effect of planned teaching regarding infertility on knowledge among men

The data on demographic characteristics were revealed on 120 participants maximum participant's (59.17%) are belong to 26-35 years of age, 30.83 % of samples are up to secondary and 50% of samples belong to Farmer. Around 50% of samples are married and 50% of samples are unmarried.

85.83% of participants have not received any information regarding infertility, and only 14.17 percent of participants received information.

Knowledge assessment related to infertility among men in pre-test -

The results of the findings pertaining to the level of knowledge of men before receiving planned teaching show that, in pre-test majority 65.83 % of participants had average knowledge score and 32.50 % participants had poor knowledge score and only 2% had good knowledge score This findings correspondence to the research study on investigating the knowledge levels of university students about infertility conducted byDiğdem Müge Siyez, et al.It was found that university students' IKT scores significantly differed according to gender ($p<0.01$); age ($p<0.05$); body mass index ($p<0.05$); reproductive health education status ($p<0.001$), presence of infertile individuals around ($p<0.001$); having sexual intercourse ($p<0.001$); smoking ($p<0.001$) and alcohol consumption frequency ($p<0.05$).[44]

Knowledge assessment related to infertility among men in post-test

The majority of the participants 76.67 % had average knowledge score and 23.33 % participants had good knowledge score after planned teaching. This showed that, men's knowledge was increased after the administration of planned teaching regarding infertility. Therefore, the finding concluded that, the null hypothesis H0 was rejected and research hypothesis H_1 was accepted. In pre-test the majority 73.3% of the subjects had inadequate level of knowledge,followed by 26.7% of the respondents had moderately adequate knowledge whereas in thepost-test 76.7% of the subjects had sufficient knowledge and the remaining 23.3% haveobtained fairly adequate knowledge regarding the effects of ecological toxinsand lifestyle factors on male fertility. The study findings related the other study conducted by Ms. Takhelmayum Pintu on planned teaching program on knowledge regarding effects of ecological toxins and lifestyle factors on male fertility.[45]

Comparison between pre-test and post-test knowledge score regarding infertility among men–

Mean and SD score among men's level of knowledge score before the planned teaching (Mean=9.93, SD=2.67) and post –test knowledge score is (Mean=14.58, SD=2.83) respectively and the result was found to be statistical highly significant and calculated 't 'value is 57.11 which is more than table value and is significant at the level of 0.05. Therefore, the researcher concluded that Null hypothesis H_0 was rejected and researchable hypothesis $H_1$was accepted. The mean value of posttest knowledge score was higher than the mean value of pre-test among men so, it indicates that, planned teaching was more effective in increasing the knowledge regarding infertility.

There is significant association of pre-test knowledge scores of men with education (chi-square-47.32), occupation (23.74) and previous information (20.06) with but there is no significant association among age (3.02), marital status (2.24) with pre-test knowledge scores.

In the study it was proved that there was association between the pre-test knowledge score and demographic characteristics of the participants as evidence by the knowledge is dependent on education, occupation and previous information. But there is no association between the pre-test knowledge score with age and marital status as evidenced by the knowledge is not dependent on age and marital status. The study findings correspondence toa study to assess the knowledge and thoughts regarding infertility among adolescents studying the knowledge scores of teenagers revealed that fifty eight percent had average knowledge, twenty five percent had poor knowledge and remaining 16.66% had excellent knowledge regarding infertility. The attitude scores of teenagers revealed that 56.66% had neutral attitude, 25% had positive attitude and remaining 18.33% had negative attitude regarding

infertility. The study concluded that the knowledge and attitude in the respective field was inadequate among the teenagers. So it is important to initiate actions to enhance the knowledge and attitude of the students in the college so that they can take necessary measures to prevent infertility.[46]

CONCLUSION-

The study findings further concluded with promotion for the scientific knowledge regarding infertility. It requires hard efforts to make the men aware about the infertility and their issues. The interpretation was drawn by the researcher was that men are not getting the proper information on the infertility condition as there was lack of accessible resources leading to lack of knowledge and scientific information on what are various causes of infertility and specially in men than in female because science ancient era females are held responsible for the infertility but we as health care professionals and eradicate these myths by imparting the correct information through proper channel.

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