

Effect Of Information Booklet on Recent Trends in Infertility Management Among Health Care Workers Serving in Health Care Centers at Vidarbha Region of Maharashtra

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Abstract—Background: Infertility is a growing public health concern, and recent advances in infertility management require healthcare workers to possess updated knowledge to provide appropriate care and counselling. Educational interventions such as information booklets can enhance the knowledge of healthcare

Objectives: The study aimed to assess the effectiveness of an information booklet on knowledge regarding recent trends in infertility management among healthcare workers serving in healthcare centres in the Vidarbha region of Maharashtra. It also sought to determine the association between post-test knowledge scores and selected demographic variables.

Methods: A quantitative research approach with a quasi-experimental pretest-posttest control group design was adopted. A total of 94 healthcare workers were selected through convenient sampling and divided equally into an experimental group (n = 47) and a control group (n = 47). Baseline knowledge was assessed using a structured knowledge questionnaire. The experimental group received an information booklet on recent trends in infertility management, while the control group did not receive the intervention. Post-test assessment was conducted using the same questionnaire. Data were analysed using descriptive statistics, paired and independent t-tests, and one-way ANOVA.

Results: In the pretest, both groups demonstrated moderate knowledge regarding recent trends in infertility management. The mean pretest knowledge score was 12.70 ± 2.41 in the experimental group and 14.21 ± 3.51 in the control group. Following the intervention, the experimental group showed a marked improvement, with the mean post-test score increasing to 20.70 ± 2.41 , whereas the control group showed only a slight increase to 15.21 ± 3.51 . The improvement in the experimental group was highly statistically significant ($t = 22.80, p < 0.05$), while the improvement in the control

group was not statistically significant ($t = 1.95, p > 0.05$). Comparison of post-test scores between groups revealed a statistically significant difference ($t = 8.84, df = 92, p = 0.001$), confirming the effectiveness of the information booklet. One-way ANOVA showed no statistically significant association between post-test knowledge scores and demographic variables, including age, gender, designation, monthly salary, and type of employment ($p > 0.05$).

Conclusion: The study concluded that the information booklet was an effective educational intervention for improving healthcare workers' knowledge regarding recent trends in infertility management. The observed improvement was independent of demographic characteristics, indicating that the information booklet can be used as a simple, cost-effective, and practical educational resource to enhance knowledge among healthcare workers.

Index Terms—Infertility management, information booklet, healthcare workers, knowledge, quasi-experimental study, educational intervention, Vidarbha, Maharashtra.

I. INTRODUCTION

Fertility is a natural gift getting from nature. It is the readiness to create new life. Men and women come together and through the process within them, the beginning of a child starts. But sometime even everything can go right or wrong. A child does not come that we can say infertility. Infertile means not able to produce or not able to have children of a married couple. A condition of the male or female reproductive system. Infertility has long been viewed as a social stigma and is frequently viewed as a physically, psychologically, and socially harmful affliction that

affects infertile women more than males. Being without baby was a valid reason for divorce and a source of shame for women social than a biological concept.¹

A condition of the male or female reproductive system, infertility Those who are infertile and completely unable of conceiving after 6 to 12 months, depending on age different from couples who have decreased ability because they take longer than the natural time to conceive.²

Primary or secondary infertility are both possible. Secondary infertility occurs when a person had at least one previous pregnancy, whereas primary infertility occurs when a person has never conceived fertilized egg or embryo does not survive, The uterine lining does not adhere to the fertilized egg.³

Recent trends in infertility management can be invasive procedure or hormonal therapy along with growing very fast on fertility preservation it will helps to improving the quality of life for individual facing infertility. Over the years advancement in knowledge of reproductive physiology and available of specific diagnostic method and treatment and management has improve considerably so here we look recent trends and advancement for measuring to manage infertility. Recent trends including ART, vitamin D supplementation, fertility preservation, holistic approach, non-invasive diagnostics ICSI, seminal analysis.⁴

II. OBJECTIVES

To assess effect of information booklet on recent trends in infertility management among health care workers serving in health care centres Vidarbha region of Maharashtra.

III. METHODS

A qausi-experimental design with control group and experimental group non- randomized control group was used to assess the effect of information booklet on recent trends in infertility management among health care centers at Vidarbha region of, Maharashtra.

Inclusion criteria: Health care workers who are available at the time of data collection Both male and female health care workers.

Exclusion criteria: Those who not medical professional qualified 4th class workers, sweeper housekeeping workers.

Approach: A quantitative approach was selected to assess the effect of information booklet on recent trends in infertility management among health care workers serving in health care centers at Vidarbha region of, Maharashtra.

Research design: O1: Is the first observation on recent trends in infertility management among health care workers in experimental and control group. X: Administration of information booklet on recent trends in infertility management among health care workers in experimental group. O2: Second observation on recent trends in infertility management among health care workers in experimental and control group.

Setting of study: Setting refers to the area where the study is conducted. It is the physical location and condition in which data collection takes place in study. The selection of an appropriate setting for conducting a study is crucial for its successful completion. The study was conducted in selected area. The investigator found the setting appropriate to conduct the study because for easy transport, familiarity with the setting, cooperation and availability of subjects. In this study the investigator selected the health care centers the experimental group on which effectiveness of information booklet on knowledge regarding recent trends in infertility management.

Data collection: pretest and post-test knowledge score of control group pretest and post-test knowledge score of experimental group information booklet administered on control group And self administered questionnaires given in both control and experimental group.

Data analysis: Frequency, percentage, mean and standard deviation were used for descriptive analysis. Paired t-test and correlation analysis were used for inferential analysis, and chi-square test was used to assess associations with demographic variables. A p-value below 0.05 was considered statistically significant.

IV. RESULT

In the pretest, both groups demonstrated moderate knowledge regarding recent trends in infertility management. The mean pretest knowledge score was 12.70 ± 2.41 in the experimental group and $14.21 \pm$

3.51 in the control group. Following the intervention, the experimental group showed a marked improvement, with the mean post-test score increasing to 20.70 ± 2.41 , whereas the control group showed only a slight increase to 15.21 ± 3.51 .

The improvement in the experimental group was highly statistically significant ($t = 22.80$, $p < 0.05$), while the improvement in the control group was not statistically significant ($t = 1.95$, $p > 0.05$).

Comparison of post-test scores between groups revealed a statistically significant difference ($t = 8.84$, $df = 92$, $p = 0.001$), confirming the effectiveness of the information booklet. One-way ANOVA showed no statistically significant association between post-test knowledge scores and demographic variables, including age, gender, designation, monthly salary, and type of employment ($p > 0.05$).

Table no 1: Frequency and Percentage Distribution of Samples According to Demographic Variables (N = 94)

Variable	Category	Control Group (n = 47) f (%)	Experimental Group (n = 47) f (%)
Age (Years)	21–30	18 (38.3%)	17 (36.2%)
	31–40	15 (31.9%)	16 (34.0%)
	41–50	10 (21.3%)	9 (19.1%)
	51–60	4 (8.5%)	5 (10.6%)
Gender	Male	22 (46.8%)	24 (51.1%)
	Female	25 (53.2%)	23 (48.9%)
Designation	Doctor	9(19.15%)	9(19.15%)
	Staff Nurses	9(19.15%)	8(17.02%)
	Pharmacist	11(23.40%)	10(21.28%)
	ASHA Workers	10(21.28%)	10(21.28%)
	Lab Technician	5(10.64%)	6(12.77%)
Pay Month Salary	MPW Workers	3(6.38%)	4(8.51%)
	Fixed Pay	21 (44.7%)	20 (42.6%)
	Govt. Pay Scale	26 (55.3%)	27 (57.4%)
Type of Employment	Government	28 (59.6%)	29 (61.7%)
	Contractual	19 (40.4%)	18 (38.3%)

Table 2: Pretest Knowledge Level of Control Group (n = 47)

Grade	Score Range	Frequency	Percentage
Poor	0–6	0	0%
Average	7–12	18	38.3%
Good	13–18	25	53.2%
Very Good	19–24	4	8.5%
Excellent	25–30	0	0%
Minimum	7		
Maximum	22		
Mean $\pm$ SD	14.21 ± 3.51		

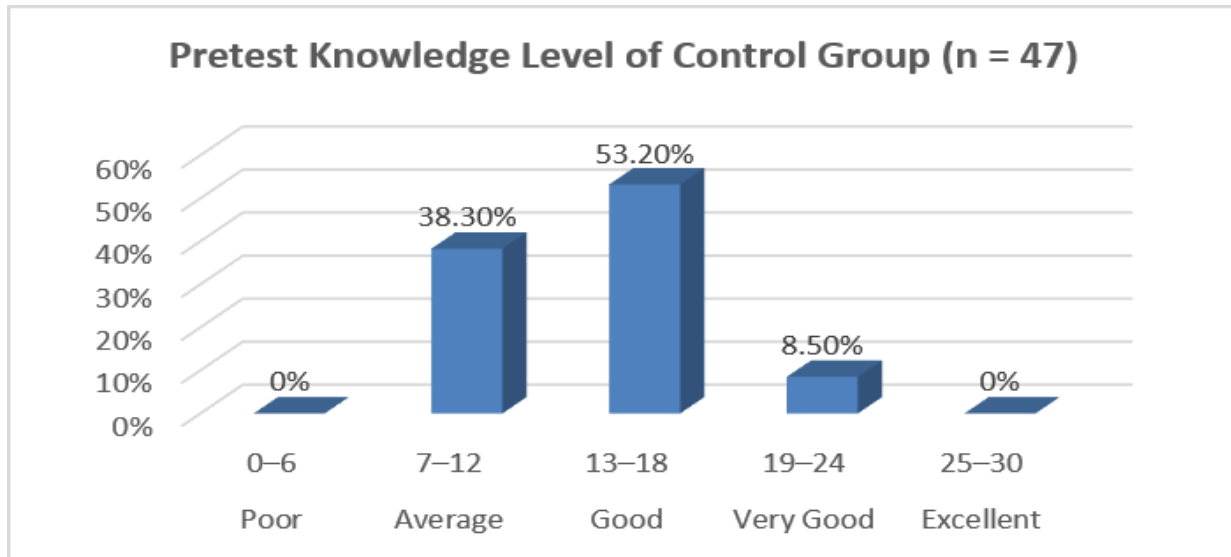


Fig. 1: Pretest Knowledge Level of Control Group (n = 47)

Table 3: Post-test Knowledge Level of Control Group (n = 47)

Grade	Score Range	Frequency	Percentage
Poor	0-6	0	0%
Average	7-12	15	31.9%
Good	13-18	24	51.1%
Very Good	19-24	8	17.0%
Excellent	25-30	0	0%
Minimum	8		
Maximum	23		
Mean $\pm$ SD	15.21 $\pm$ 3.51		

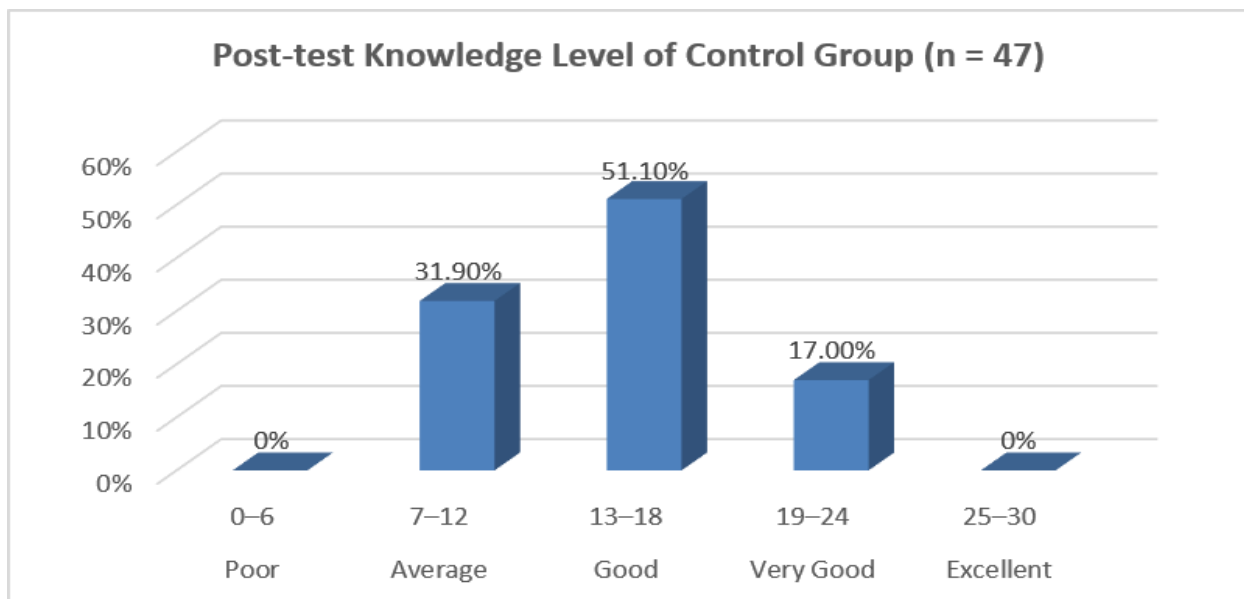


Fig no. 2 Post-test Knowledge Level of Control Group

Table 4 Pretest Knowledge Level of Experimental Group (n = 47)

Grade	Score Range	Frequency	Percentage
Poor	0–6	0	0%
Average	7–12	21	44.7%
Good	13–18	26	55.3%
Very Good	19–24	0	0%
Excellent	25–30	0	0%
Minimum	7		
Maximum	17		
Mean ± SD	12.70 ± 2.41		

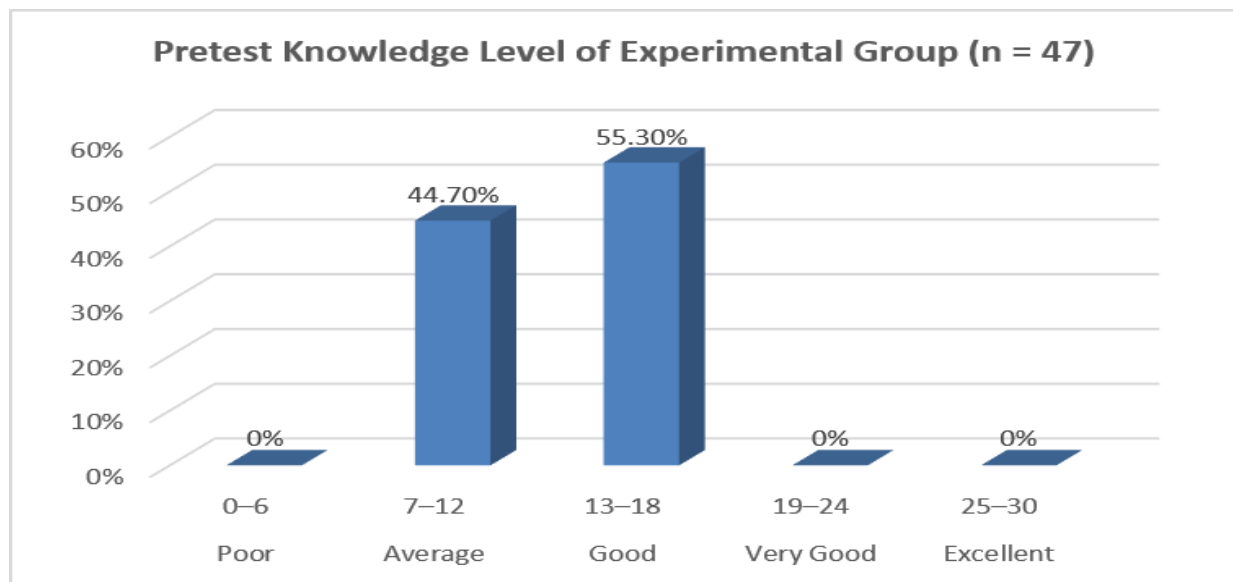


Fig. 3 Pretest Knowledge Level of Experimental Group (n = 47)

Table 5 Post-test Knowledge Level of Experimental Group (n = 47)

Grade	Score Range	Frequency	Percentage
Poor	0–6	0	0%
Average	7–12	0	0%
Good	13–18	9	19.1%
Very Good	19–24	29	61.7%
Excellent	25–30	9	19.1%
Minimum	15		
Maximum	25		
Mean ± SD	20.70 ± 2.41		

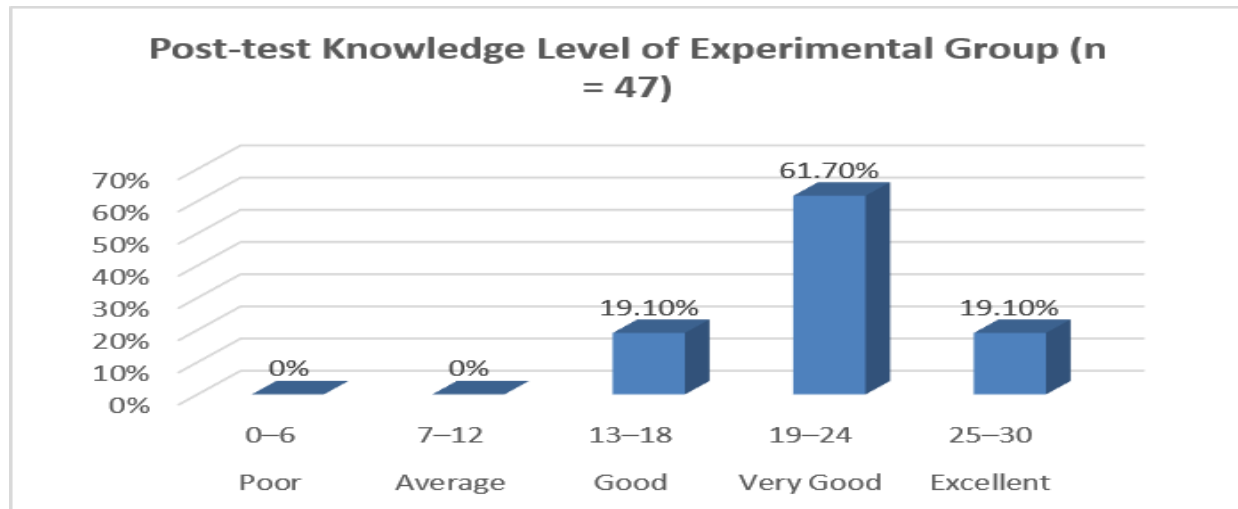


Fig. 4 Post-test Knowledge Level of Experimental Group (n = 47)

V. DISCUSSION

The present study was conducted to assess the effectiveness of an information booklet on knowledge regarding recent trends in infertility management among healthcare workers serving in healthcare centres in the Vidarbha region of Maharashtra. The findings demonstrated that the information booklet was an effective educational intervention for improving knowledge among healthcare workers. Overall, the findings of the present study indicate that an information booklet is a simple, practical and cost-effective educational strategy for improving healthcare workers' knowledge regarding recent trends in infertility management. Regular educational interventions of this type may help healthcare workers provide more appropriate information, counselling and referral to individuals and couples experiencing infertility.

VI. CONCLUSION

From the findings of present study, it was concluded that the pre-intervention demographic variables of health care workers in control and experimental group were more or less similar revealing both the groups had similar characteristics.

Percentage of knowledge and the mean scores of health care workers were more or less similar in both the groups before intervention. However, after an intervention, the percentage of knowledge and the

mean scores of of health care workers were significantly increased in experimental group whereas it was remained unchanged in control group.

There was a significant difference between pre-test and post-test knowledge scores in experimental group. And, there was also a significant difference between the post-tests of control and experimental group. Thus, it was concluded that the information booklet on recent trends in infertility management as a method of self-administered questionnaires was effective among of health care workers serving in health care centers at Vidarbha region of Maharashtra.

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